THERE REST THY FEET

THE CHAD EXPERIENCE

Gillian Paterson

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THE CHAD EXPERIENCE

by

Gillian Paterson

Here is thy footstool and there rest thy feet where live the poorest, and lowliest, and lost.

When I try to bow to thee, my obeisance cannot reach down to the depth where thy feet rest among the poorest, and lowliest, and lost.

Pride can never approach to where thou walkest in the clothes of the humble among the poorest, and lowliest, and lost.

My heart can never find its way to where thou keepest company with the companionless among the poorest, the lowliest, and the lost.

Rabindranath Tagore

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The CHAD Experience

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The author wishes to thank the staff of the Community Health Depart
ment, CHAD and CODES, and all those members of the community
who made the preparation of this book such a pleasure.

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Community Health and Development

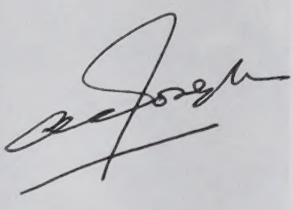
This little book is designed to fill a long-felt need for information about the work of CHAD. I hope it will prove useful to those many people — visitors, medical educators, and others involved in health and development work — who ask for information about our programme, its successes and failures, the dilemmas we face and the lessons we have learnt.

CHAD is a programme of the Community Health Department of Christian Medical College, Vellore. You will see CHAD's logo above. The umber charka, or spinning wheel, was seen by Mahatma Gandhi as the tool that would free village communities and win independence for our country; the mother and child symbolise CHAD's special concern for the women and children in the communities we serve.

Dr. Ida S. Scudder, CMC's founder, called on her successors to pass on her 'torch of life' to generations to come. CHAD's team is committed to this ideal. We are also fortunate to have had a succession of departmental heads under whom CHAD has been able to move forward : Dr Le Roy Allen, Dr K.G. Koshy, Dr. V. Benjamin, Dr. Sojibai Samson and Mrs. Achyamma John.

The department is grateful to the Director and administration of CMC, who have supported us so loyally, and to the many governmental and voluntary agencies who have given technical and financial help.

I am also profoundly grateful to Mrs. Gillian Paterson for her untiring efforts in putting this document together, and to Christian Aid (UK) for releasing her to work with us on it.



Dr. Abraham Joseph
Professor of Community Health
Director of CHAD

Dr. Abraham Joseph, Director of CHAD, tries to resolve a dispute among a group of gypsies. He is accompanied by 1st year medical students.

A Total Commitment 1

"Go to the villages : that is India.
Therein lies the soul of India."

Mahatma Gandhi

The year is 1910. It is a sleepy midday on a hot, dusty roadside in South India. Dogs scratch and snooze in the shade, and a cow ambles dreamily across the track. Under a tree, some twenty people have gathered : women with tiny babies; children with distended stomachs playing with sticks; an emaciated man with blind, filmy eyes. A little way off squats a gnarled old man - probably not as old as he looks - whose bandaged feet and tortured hands proclaim leprosy.

Suddenly, a rumble, an approaching roar, a maelstrom of dust. Younger children shrink behind the tree; the older ones shriek with delight. A white Peugeot car pulls up with a blast on the horn, a woman doctor and two young girls climb out and the clinic begins. (The Peugeot's engine is left running : if it is switched off, it might never start again!)

The principle of community care combined with curative excellence has been part of the CMC ethos from the very beginning. India was then almost entirely rural, and even today more than 75% of the population lives in rural areas. However, most doctors, then as now, came from the cities, and the structure and content of medical education emanated from the West. Doctors were mostly entirely ignorant of the conditions under which the vast majority of their patients lived. The practicalities of treatment under village conditions, and the traditional beliefs and practices of the people they aimed to serve, were a closed book.

In addition, nearly all of them were male, at a time when Brahmin, Hindu and Moslem women were forbidden by their religions to be seen by men, even if they were doctors. This, in effect, denied the benefits of modern medicine to most of the female population of India, and was responsible for countless thousands - maybe millions - of deaths.

In founding the Christian Medical College, Ida Scudder's dream was threefold. She would open a hospital that provided surgical, outpatient and inpatient care of the highest possible standard. She would take

that care to the roadsides and villages, and train others to do so. And her most burning ambition - she would train Indian women to b doctors and serve the women of India and their children.

Stories of this intrepid American woman still abound in North Arco today. Hat firmly on her head, she would hurtle along the dusty track in her car - the first in the district - which on the way out was loade with staff, medicines, instruments and sterile dressings. On the wa back it might in addition carry patients needing hospital treatment sometimes sitting on the laps of unsuspecting visitors. The younge and fitter members of the party were often forced to travel on th running board. Few people now can really remember this sight, bu many believe they can. Aunt Ida and her dreams have passed into th mythology not just of Vellore but of the whole district. But thos dreams, now nearly a century old, are more than mythology. They hav become the reality of today.

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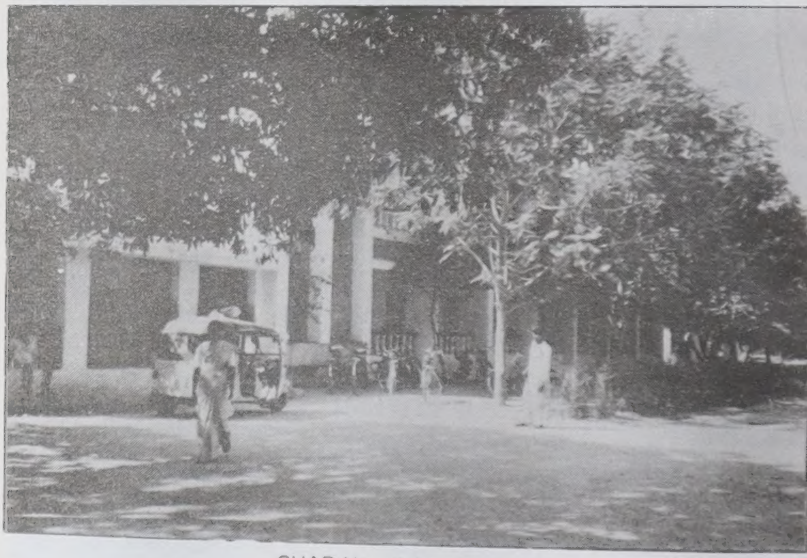

CHAD Hospital at Bagayam

Today, there is national and international pressure for primary health services to move out of the hospitals and into the communities where people live. The notion that health is something that can be handed out at a clinic to passive and grateful recipients is - at least in theory - a thing of the past.

Nor do we any longer believe - at least in theory - that the health of the community is simply a matter of improved medical services. All the

medicines, iron supplements and immunisations in the world will not help much if a family has nothing to eat, no income and no marketable skills.

Kanivambadi block, which CHAD serves, is an entirely rural area with a population of 83,000, living in 68 villages. Of these, some 40% to 50% live below the official poverty line. Traditionally, the population is entirely dependent on agriculture for its survival, so that there is no hedge whatever against poor rains, inefficient husbandry, accidents or incapacitating illness.

Communities are often divided according to caste, and most villages in Kanivambadi have a substantial Harijan or scheduled caste population, who are normally landless, and have been denied the opportunities to train for skilled jobs. Bus services, though available, are often difficult to reach, and a day spent taking a sick child to hospital is a day's income lost. 40% of adults in Kanivambadi are illiterate, and the figure is nearer 70% among women.

In addition, each village has its quota of the physically, mentally or socially handicapped, unable for one reason or another to become fully productive members of the community. The blind or the crippled, leprosy victims, cured or otherwise, those suffering from cerebral palsy or other evidence of birth trauma, the chronic illnesses asociated with

Post-Natal visit by CHAD Community Health Nurse

low standards of nutrition or health education - tuberculosis and rheumatic heart disease are common examples in the region.

No medical service, however efficient or well resourced, can hope to tackle all these problems, and yet they are all important obstacles to the creation of a healthy population. What is needed is a much more radical and comprehensive commitment to the well-being of the community as a whole : a commitment that doesn't rest at the distribution of medicines; doesn't rest at the provision of immunisation and health education; in fact doesn't rest at all until the physical, social and economic conditions that create apathy and dependency are removed; until the people take into their own hands the responsibility for their own welfare.

In 1978, in its Alma Ata Declaration, 'Health For All by 2000 AD', the World Health Organisation put it this way :

> "Community participation is the process by which individuals and families assume responsibility for their own health and welfare and for those of the community, and develop the capacity to contribute to their and the community's development. This enables them to become agents in their own development instead of passive beneficiaries of development aid."

Of course this approach to health has massive implications for the future of medical education, particularly in countries where, as in India, the vast majority of the population lives in rural areas. Teaching hospitals pride themselves, rightly, on being centres of excellence, receiving specialist, difficult or acute cases from a wide catchment area. Medical students come expecting to learn the latest in modern technology and practice, with the support of highly trained nursing and para-medical staff, and all the facilities of a big, well-resourced institution. In the medical world, the highest status is accorded to those who go on to become consultants or professors in just such institutions.

And yet, as we have seen, the real health challenge in India today - and in most other developing countries - is not the expensive and technologically advanced treatment of individuals, although this has its place. It is nothing less than the transformation of backward and impoverished communities into prosperous, healthy ones which have the confidence, resources and knowledge to participate in their own health care.

The Indian Government report, "The Reorientation Of Medical Education" (ROME) recognised this and called upon the medical colleges to respond to the challenge. Departments of Community Medicine should be set up, and each teaching hospital should take responsibility for

three development blocks - a population of about 300,000. All students - medical, nursing and paramedical - should receive training in community health, and junior doctors should all do an internship in a primary health centre of some description.

However, institutional change is not easily achieved. In most teaching hospitals, it will be a long time before community health achieves the status it deserves and which its potential for change demands that it should have.

All of which brings us back to where we started : with Dr. Ida Scudder, arriving in a cloud of dust at that little clinic under the roadside tree. Because CMC Vellore has been luckier than other teaching hospitals. Its commitment to community health is more than a tradition. It is part of the ideology of the institution, dating back to the birth of the hospital and of the medical college itself. After all, as its founder pointed out, Jesus didn't sit in a clinic and wait for the sick, the sad and the outcasts to come to him : he took his healing to the streets and roadsides, where he freed the sick and the hopeless from their burdens, set them on their feet, and sent them back, strong and confident, to their own communities.

And this is where CHAD comes into the picture.

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Testing milk outside a CHAD dairy co-operative

CHAD - the acronym for Community Health and Development - is a programme of the CMC's Department of Community Health, set up to educate medical students and others in the realities of primary health care in a rural setting. It fulfils both the letter and the spirit of CMC's 'Outreach and Renewal' programme (Geneva 1980), and its innovative approach to medical education is described in detail in Chapter 3 of this book. But CHAD is far more than just an educational programme - it is part of the life blood of Kaniyambadi block, touching the lives of every one of the 83,000 man, women and children who live there, and offering new hope to many of them.

Its big white mobile clinics and blue leprosy team vans are familiar sights in those villages that can be reached by road. So is the cluster of milk-churns awaiting collection outside the Women's Dairy Co-operative. From a CHAD balwadi comes the shrill piping of tiny children singing, their mothers having been freed for productive work in the fields or elsewhere. Cheerful voices and laughter echo from the newly-built hut that houses the mat-weaving and sisal co-operative. Two local women - one a former traditional midwife - squat beside a woman in labour, their CHAD training and their sterile midwifery kits making a successful outcome likely. Proudly, a cured leprosy patient drives her calf towards the fields. Half a dozen medical students sit on straw mats on the ground with an 'alcoholics anonymous' group of ex-servicemen, while round-eyed toddlers stand in the doorway and stare. These, and many more, are the outward and visible signs of the presence of CHAD.

Although the visitor's introduction to CHAD will probably be the CHAD Hospital at Bagayam, the focus of CHAD's activities - and indeed the measure of their success - is what happens in the villages. Those activities fall into four main categories : Primary Health Care and Balwadis, or day nurseries; Animal Husbandry and Agriculture; Adult and Non-Formal Education, and last, the socio-economic re-generation programmes run by CODES, the Community Development Society. These four 'wings' of CHAD work closely together, often in integrated, multidisciplinary teams.

Village based members of the teams are chosen by the community and trained by CHAD. These include part-time community health workers (PTCHWs) and health aides, agricultural extension workers; educational extension workers and animators, balwadi (or creche) teachers, the leaders of the various craft co-operatives and other bodies. With their intimate knowledge of the community, they are responsible for the basic implementation of the CHAD programmes within the village, for monitoring these programmes, and for liaising with the more mobile professional staff and resources based at Bagayam.

Of these four 'wings' of CHAD, its health service is by far the most comprehensive and highly resourced. Its communications centre is at the CHAD Hospital in Bagayam, the northern apex of the Kaniyambadi triangle, about 6 km from Vellore. This well-equipped, 80-bed hospital acts as the base from which the mobile health teams go out to the villages. It is a training centre for village and Bagayam based personnel. Its mother and child health unit, labour room, leprosy unit, outpatients department, intensive care ward and operating theatre treat patients who are referred from the village clinics, or simply come along because they are worried and know they will be cared for here. Meanwhile, the hospital's laboratory and pharmacy provide support for its other services. Highest priority is given, in all the hospital's activities, to the training of interns, medical students, para-medicals and nurses.

Home visit A mother talks to the CHAD health team of P T C H W , health aide and Community Health Nurse

"If our nation is to rise, how can you do so if half our nation, half our womankind, lag behind and remain ignorant and uneducated? How can our children grow up into self-reliant and efficient citizens of India if their mothers are not themselves self-reliant and efficient?"

- Jawarhalal Nehru

Old customs die hard in rural areas, particularly where the position of women is concerned. Girls are twice as likely to suffer from malnutrition as boys, and half as likely to get a proper education. What is the point,

when a daughter will leave home shortly and go and live with her new husband's family? Better to spend available resources on the son, who will stay with you and look after you in your old age.

A village woman is expected to care for the home and children, and to submit to her husband in all things. Divorce or separation, even if she leaves to save her own life or her children's, leads to ostracism not only from the community but from her own family, who will normally refuse to take her back. If she is childless, or has no son, her husband may divorce her and marry someone else. Since she has no income, no skills, no property and no home, she may then become utterly destitute.

In all its programmes, CHAD works primarily with women and children. They comprise 70% of the population; they are the key to strong, healthy families; and women and girls are without doubt the most under-used resources that India has. In addition, CHAD has found that women are conscientious and committed. They learn quickly and are prepared to work hard for their money. Above all, where a good proportion of a man's wage is spent on other things, virtually all the money a woman earns goes straight to her family.

Headwoman of Saramanatham Pappadam making Co-operative

For these reasons, women have become the focus for CHAD's economic as well as its health programmes. CODES, the Community Development

Society, has encouraged and trained women to set up craft groups in their villages, making straw mats, palmyra-weave baskets and a variety of sisal products. This industry now makes around Rs.400,000/- per annum. But the women don't just work on the production line and leave it someone else to make the decisions. Under the guidance of CODES, they manage their own co-operatives, plan their own marketing strategy, discuss and implement design policy and negotiate contracts.

While their young children are looked after in a local creche or balwadi, they are able to develop skills and make money for their families. Success breeds confidence : women who have never been further than the next village have sallied forth determinedly to craft fairs as far away as Bombay or Delhi.

In 1987, three craft groups applied for registration as a joint co-operative society. They heard nothing. They applied again : still no answer. "Pakalaam," said the officials. ('We shall see.') Women's development was just not a priority in official circles.

The women decided that the time had come to put it on the map. One November day in 1987, 800 women co-operative members marched in protest the 6 km from Kaniyambadi administrative building to the CODES campus at Bagayam. The press was there in force, the (woman) collector and other district officials. There was no mistaking the femini-

CODES women's welding team at work

nity of these graceful, jewel-coloured, sari-clad women. But there was no mistaking their determination either. Two days later, their application was granted.

CHAD's work with women is not confined to income generating activities. In a region where twice as many women as men are illiterate, CHAD places a high priority on teaching women to read. And of course, as their awareness grows and their confidence increases, this is one of the first things illiterate women want to be able to do. Many women have spoken of the joy of being able to read the destinations of buses or the signs over the shops.

Nevertheless, as Gandhi said, "Literacy is not the end of education, nor the beginning." One of the education team's most exciting ventures is the 'mathar sangam', or mothers group. These groups of rural women meet regularly in their villages, usually with one of the educational extension workers. They are invited to discuss a particular problem they or their community faces, to establish the background and causes of this problem, and to decide what to do about it. In consequence, many of the groups have become highly aware of the factors that govern their daily lives, what rights they have, and how to go about claiming them. Success stories include negotiating for an extended bus service to connect neighbouring villages, and the removal of an overhead power cable that was preventing CHAD's mobile clinic from reaching one particular village.

Planning next year's Christmas orders from Traidcraft - a directors meeting of CODES Joint Craft Co-operative.

In the West, such successes would not be remarkable. But in India, women have traditionally kept quiet and left the men to handle offcialdom, and all other matters outside the home. Thus male action (or inaction) has determined the lot of the whole family, and the women have fatalistically accepted it. In this situation, these achievements are little short of electrifying.

K. Murugesan, CODES' dynamic General Secretary, speaks with great excitement about what is happening. "There's a silent revolution going on," says, "and there's no telling where it will end."

All this seems to have brought us a long way from the primary health programme we started out with. Or has it? The welfare of the community is not just the *means* but the *measure* of good health. In the CHAD philosophy, primary health care is inseparable from social and economic development. It starts from where the people are, builds on what they have, uses the resources they possess and follows where they lead. Without such integration, most medical care in poor communities is mere sticking plaster for chronically open wounds. With it, the foundation is laid for the whole community to go forward, strongly and confidently, into the future.

The W.H.O. again, this time issuing a 'declaration of personal commitment' following its discussions on leadership development for 'Health For All' in May 1988 :

> "We believe that
>
> - we need a greater concern and commitment to achieve the goal of Health For All by the year 2000 through primary health care, among politicians, professionals and community leaders;
>
> - building self-reliance and leadership capabilities at local level is the most important ingredient for sustained development and progress in health;
>
> - the development of leadership that can be sustained as a continuing process at all levels is an important strategy to mobilise greater social and political commitment for the total Health For All movement."

With its long-standing, integrated approach to health; its insistance on the strengthening of the socio-economic base of communities; and the priority it gives to the development of leadership skills among formerly voiceless sections of the community, CHAD is a blueprint for primary health care in developing countries according to WHO criteria. The future of CHAD may well be the future of primary health care models in India. It is a challenge and a responsibility. It is also a great opportunity.

Many Voices 2

1. THE SHOLAVARAM WOMEN

Social change is never easy : there are usually far too many people with a stake in keeping things the way they are. In India, the factors which produce rural poverty are deeply, some believe permanently engrained in the fabric of society. Caste, land ownership, illiteracy, debt, exploitation of labour, the low status of women and girls, superstition, a fatalistic belief in the inevitability of suffering : all these are the enemies of health and development. It is not surprising that so many efforts at development fall by the wayside. What is really surprising is that so many succeed. The Sholavarum Women's Palm-Leaf Weaving Co-operative has suffered more than its fair share of the above problems. It is also quite determined to succeed.

In 1983, CMC's Community Health Department held its Community Orientation Programme for 1st year students in Sholavaram. Eighty students and numerous staff descended on the village and camped there for a fortnight. They conducted demographic, health and socio-economic surveys, they encouraged the villagers to talk about their lives and they held discussion groups on particular problems. One of the groups that met was the village's mather sangam or women's group.

The discussion started with health education, but came round eventually to the impossibility of keeping the family healthy if you have no land to grow food and no money to buy it. What was needed was some kind of income generation programme that did not rely on seasonal factors. They decided to approach CODES, and in April 1984 the new palm leaf weaving centre opened. CODES provided a two-month basic training, and the group moved into its own workshed - a small room adjacent to the youth club in the Harijan section of the village. By 1986, it had 30 members, each earning about Rs 15/- per day, the highest yield of any of the CODES co-operatives. They decided they must have their own workshed.

They identified a site, then they all stopped work for 6 days, applied themselves to the building, and by the end of the week, when CODES

staff visited, they were amazed to find that the new shed was up. As their contribution to the venture, CODES sent their women's masonry team down to concrete the floor and complete the building. The future seemed assured.

But under the bright surface, all was not well. Unwittingly, the group had made enemies. Before the co-operative started, these women - most of them Harijans - had been employed as day-labourers in the fields, earning Rs.3/– per day. The work was seasonal, hard, and dependent on the monsoon. A man doing the same job would earn up to Rs.15/– per day. The women's work was missed : the landlords begged them to come back, and the rate went up to Rs.4/– or 5/– per day. But they were making much more than that, working for themselves. They refused. The landlords had to pay the full Rs.15/– per day for male labourers.

There was jealousy, too, from the men of the village, who after all had the same problems of irregular seasonal labour as the women. Now the women were fully employed, receiving help from CODES, dressing in attractive saris and earning more, very often, than their husbands and brothers. Furthermore, this economic power gave them a certain status within their homes : a status which is quite new among rural women. And much as the menfolk liked the extra money coming into the family, they were unnerved by this surrender of power to their wives, daughters and daughters-in-law.

Most people in the village, whether caste or scheduled, were poor. But many of the caste women were reluctant to join the group, because it meant going into the scheduled caste area. And yet here was this group of Harijan women being helped to better themselves, while their social superiors still laboured in the fields. They bitterly resented the new affluence of the other women.

It must be said that the members of the group did not always help their own case. They were often stung into sharp responses by the teasing of the young men, who were used, after all, to submissiveness and downcast eyes. Now the women sat with their legs outstretched as they worked, not moving out of the way as they should do for their male superiors. It was all too much.

Then the night came when the whole village was away, attending a festival in the next village. The centre was silent, deserted. There was nobody around to see the flames. By the time the people of Sholavaram came home, their craft centre was a heap of charred fragments and a

pile of ash. Six thousand rupees-worth of building, goods and equipment was destroyed, along with two and a half years' work. They had put everything into this venture — and now it was all over. They got on a bus, and by 4.45 am they were all standing weeping on the doorstep of a CODES development worker.

Purima Ammal, the co-operative's leader, says they all felt nothing as bad could ever happen to them again. Bad enough that their livelihood was gone. Worse, that it had been destroyed by their own brothers and neighbours.

They never did find out for certain who fired the centre. Everyone denied it. The women wanted a police investigation, but were persuaded against it by the village leaders. It was clearly an inside job, and nobody wanted to see their own young people go to prison. A village meeting was called, attended by CODES representatives, K. Murugesan and Marutha Muthu, who at times wondered if they would escape without physical injury, so great was the fury and bitterness of some of the young men. After three hours of stormy wrangling, it was decided that the centre would be rebuilt by the village youth - a sort of 'no-fault' compensation - and that the village would take responsibility for seeing that it was done.

But they were still not out of the woods. Reluctant to build again on the same site, the women started looking for another piece of land, this time outside the Harijan area, so that other women would feel able to join. Nobody would give them any. They visited the Collector, the Administration and the Resource Inspector, asking for government land. They drew up a petition, but to no avail.

The centre is now in one room opening onto the verandah of someone's house. They have little space for work or storage, and their numbers have dwindled to fifteen, as members got married or moved away. But the women are still confident about their future. Other sisters will join once there is space for them. This is their livelihood, they've fought and suffered for it, and nobody is going to take it away from them.

Purima Ammal has the last word. Through co-operation, she says, they have found happiness, through unity, strength. The dice are still loaded against them, but then, they always were. Nobody meeting them can seriously doubt that they will, eventually, win.

II. SUBASHINI : A PARTIAL VICTORY

To survive, you need food. To be healthy, you need enough of the right kind of food. If you have no money to buy food and no land on which to grow it, you must work, and be paid either with food or with the money to buy it. If you earn in a day just enough to feed your family for a day, then a day's work missed means a day when you don't eat. If you are desperate, you may borrow. But it costs money to go by bus to the banks or credit organizations in town, and will mean yet another day's work lost, so it is much easier to borrow from the local money lender. He will probably charge about 130% interest, paid in deceptively small amounts, and that will mean that until he is paid back you will have even less to eat at the end of every day.

This is the reality of life for most Indian villagers today. 40-50% live below the official poverty line and the average loan repayment is about 10% of total income. The struggle for survival is the struggle to eat : medical intervention will achieve nothing unless the family is winning that struggle. And no primary health care programme which forgets or ignores that reality can hope to succeed.

When Subashini was 18 months old, she was referred to CHAD Hospital with acute diarrhoea by the local PTCHW and health aide. She was severely dehydrated, and so weak and malnourished that she could barely move. Her arms and legs flopped, like those of a rubber doll, wherever they were put. She had never attempted to walk or crawl, and her parents feared that she might be congenitally handicapped.

With her mother, Malarkodi, she was admitted to CHAD's malnutrition unit. Once her fluid levels were back to normal, she was fed with nutritious foods and her mother was helped to understand the causes of malnutrition and how to avoid it. Within a fortnight, she had gained half her existing weight, and was learning to walk. By the time she returned home, she was "quite stout", says Malarkodi. She went on receiving free supplementary food until her weight was normal for her age, and the health team has monitored her growth regularly ever since. Now, aged three, Subashini is still small for her age, but pretty, bright-eyed and alert.

A success story? Well, it would seem so. But wait.

It was apparent when Subashini was admitted to hospital that the problem was not just diarrhoea and lack of knowledge of basic nutrition. It was the acute poverty of the family. The father, it emerged, suffered

from leprosy, and his foot and hand lesions had reached the stage where he didn't feel able to go out to the fields and work. The family had no income except what Malarkodi could earn, and what was given by family and neighbours.

So Malarkodi would rise at dawn, wash, light the fire and go for water. She would sweep the front of the house, then chalk the intricate white 'kolam' design that always decorates her front step. She would breast-feed Subashini and make ragi porridge for the other children. And then she would wrap a little of the porridge in a leaf for her own midday meal and go off to the fields. Subashini was left in the care of her 3 year old brother, who would place a dummy, or pacifier in her mouth when she cried - clean in the morning, but filthy and insanitary after a few hours. She was breast fed twice a day, at 6.30 am and 6.30 pm, when her mother returned.

When Subashini was 18 months old, she almost died of malnutrition and diarrhoea

Once the family had a small piece of land, which Chinnapayan, the father had inherited. But then they had to sell it to pay off a debt incurred when Malarkodi was producing their second child. Chinnapayan was ill and they couldn't work.

CHAD arranged for Malarkodi to join the silk-weaving co-operative in her village, which would bring in an income of Rs.200-300/– per month. Subashini was admitted to the nearby CHAD balwadi while her mother worked, and her father was persuaded to come forward for treatment of his leprosy. The little boy was able to earn a few paise looking after his grandfather's cow.

Then, a fortnight later, the silk-reeling unit closed because of difficulty in getting hold of the raw materials, and Malarkodi was out of a job again. The balwadi and the unit were both a 3km walk from her home, and now that she didn't have to make the journey herself, she didn't feel able to make it twice a day with her daughter. After a month or two, Chinnapayan decided not to continue with the multi-drug treatment. What was the point? Four of his toes were gone already, and he'd never get back the sensation in his hands. The injections were painful and the cure distant. It he had leprosy, he had leprosy, and that was it.

Nothing daunted, Malarkodi set out to look for work again. Now she has four jobs. She works in the fields, which, in midseason brings in Rs.10/- a day. She has joined the CODES palmleaf weaving co-operative in the village, and earns about Rs.5/- a day from what she can make in the evening. When there is no agricultural work, she can often get labouring jobs on a building site (Rs.10/- a day) and she also looks after her father's cow when she can.

Furthermore, unlike most Indian village men, Chinnapayan has discovered that he really quite likes being at home, doing odd jobs about their two-room mud house and supervising the children. Subashini now goes to the Government balwadi nearby, and both her elder brothers to the local primary school. Malarkodi had a tubectomy operation at CHAD Hospital, so there is no fear of more mouths to feed.

It is break-time at the school, and the oldest boy wanders in. He is eight, but skinny, stunted, with arms like thin brown sticks and Subashini's huge eyes, set in a big, skull-like head. Alerted by the CHAD PTCHW, his father took him, some months ago, to the CHAD mobile clinic on one of its regular visits to the village. Tuberculosis was suspected. Chinnapayan has a dog-eared slip referring the boy to CHAD's TB unit - a one rupee ride on the bus - but they don't think they will bother taking him. For Malarkodi, it would mean sacrificing a day's pay, and Chinnapayan is reluctant to go to the hospital - perhaps in case they chase him about the leprosy treatment.

Now Malarkodi knows that treatment is freely available both for her husband and her son. Why doesn't she see that they get it?

Because, because. Because these sicknesses are the will of God. Becaus if the family is to eat, her priority must be work. Because, as sole bread winner for a family of five, she is worn out by the struggle for survival and can't cope with any more. Is she happy? Well, yes. The family has enough to eat. What more can she want?

A flamboyant gypsy passes, leading a much-adorned bullock, begging for alms. Malarkodi gets up to scoop some ragi porridge from the pot on the fire, wraps it in a scrap of banana leaf and takes it out to him.

Sometimes, health for all seems much, much further off that the year 2000 AD.

III. MALLIGA : FREEDOM, OR NOT?

Malliga is tall and elegant, with a garland of orange flowers in her hair and a wide, warm smile. In her lilac sari, she walks around the building site, issuing instructions with confidence, good humour and grace. It's only when you see her pick up a huge slab of granite and carry it, like a baby, to the half-built wall that you notice the strength of her arms, the firm tread and the tough, work-hardened hands.

Because Malliga is head-mason to a team of some 15 women construction workers employed by CODES. She's been in the trade since she was nine. Her uncle was a mason, and she used to carry bricks for him. She spent hours of her childhood watching what he was doing. Then, in 1983, CODES started work on a new craft centre at Edyanzath. The team consisted of male masons assisted by women labourers. But it soon became clear that the 'helpers' were in fact harder-working, complained less and took fewer breaks than the men. Why not try training the women to be fully-fledged masons in their own right?

And so, in 1984, the Women's Masonry Unit was born. Malliga talks of the early days in the villages, the teasing and the loud, offensive comments from male passers-by, of the difficulty of going on working when a jeering crowd of young men has gathered to watch. She says her husband once nearly 'broke' a man who'd insulted her.

For this reason, she much prefers to work on hospital based sites, or on the college campus, where these days the teams of women construction workers are a familiar sight. Out in the villages, where employment for unlanded men and women is mainly seasonal work in the fields, they still have to run the gauntlet of male jibes and coarse jokes.

Clothes proved to be one of the greatest problems. CODES tried hard to persuade the women masons to wear comfortable tops and trousers much safer and more practical on a construction site than the conventional sari. But for the women, the insults they received felt like the last straw. "You are not women!" taunted the male onlookers, "you are men only!" Most of them went back to their saris, and mentions of trousers are met with averted eyes and polite but total resistance. "We may be doing a man's job, but we are not men, you know, we are women," says Malliga.

Women masons build a wall outside CHAD Hospital

Although the bicycle is the commonest form of mechanised transport in India, the sight of a woman on a bike is still unusual enough to attract comment. About this, Malliga was determined. The big, angular cycle she saved for and bought saves time, and gives her much more flexibility than the crowded line bus. It also, in the end, saves money.

Malliga works from 8.15 a.m. to 5.30 p.m., eating her lunch on the site. Then she goes home and starts again, cooking the family meal, sorting things out for the morning. Then up again at 6.00 a.m. to clean the house and get her son to school. Her husband hurt his back

some years ago, and although he does odd jobs here and there the main burden of breadwinning and running the house falls on Malliga. On Sundays, she cooks meals, sees the rest of her family and deals with the household chores that mounted up during the week. About twice a year, she might go to a movie. She hardly remembers what if feels like not to be tired.

She is paid Rs.22/– per day - about Rs.500/– a month, a high wage for a woman in India, though not as much as a male head mason would earn (The younger trainee masons earn from Rs 8/– to Rs 10/– per day.) She likes the work and thoroughly enjoys the training element in it: the scheme is now recognised by the government and she accepts government - sponsored trainees onto it. But she would hate to see her own children go into masonry. She wants, she says, 'something better' for them – a job with the government maybe. Not labouring anyway.

D.V. Padmanaban, the male supervisor of the team, has forty years experience in the construction industry. He much prefers working with women. They're more straight forward and more painstaking and don't try to play the system or get something for nothing. He's had to alter his management techniques, though – no shouting or swearing, no threats. It's not, he says, necessary. The atmosphere is good-tempered, the team laughs a lot, and if there is a problem they get together and discuss it.

The team moves purposefully, lifting stone, mixing mud and gravel, carrying them to the foundation trench in huge metal bowls balanced on their shoulders or their heads. Soon the foundations will be laid and the wall will begin to grow. From the distance, in their bright saris, the women look like exotic birds pecking about on the mud and stone of the construction site.

Somehow, this programme seems to challenge people's deepest preconceptions about male and female roles, in a sub-continent where these are much more rigidly defined than in the West. There are certain things which define our sense of our own femininity or masculinity – long hair or short, for instance, trousers, keeping house, or always having the last word in an argument. Who can say what anybody else's bottom line will be, when it comes to discarding the badges of gender?

Malliga can do heavy, dirty manual work, and train and manage others while they are doing it too. She is on constant public view. She can ride a bicycle, make decisions and be the main breadwinner of

the family. But she can't give up the sari and the jasmine blossom in her hair.

IV. SWATHANDRAM AT SATTUMADURAI

Chandi is slim, precise and lively, with bright eyes that don't miss a thing. Legs outstretched, a stount cotton cloth on her lap, her fingers fly as she talks, and the pile of pale palmyra leaves changes gradually into an elegant picnic basket.

Aged 26, Chandi is leader of the Sattumadurai Women's Palm-leaf Weaving Co-operative. She is also a member of the board of directors of the Joint Registered Co-operative Society of CODES

Palm-leaf weaving has been going on in Sattumadurai since 1981. The co-operative is a large one with 35 members, very noisy to visit because the other end of the main room houses a balwadi, or creche, for 40 or more under-fives. Through a door at the back is the CHAD health clinic, and the building is also the centre for the Sattumadurai Women's Dairy Co-operative.

But it hasn't always been like this.

Some communities seems to have so many problems that development agencies are tempted to leave them strictly alone. When CHAD first started doing development work in Kaniyambadi, it by-passed Sattumadurai. It was a one-caste village, its leadership in the hands of a small, rich elite who were quite uninterested in social action. There was no community co-operation, not even a dairy co-operative, so milk was sold at low rates to the ubiquitous cycle-vendors, when with a bit of organisation, villagers might have been making nearly double by centralised marketing to the Tamil Nadu Dairy Development Corporation.

The village is on the main road south from Vellore, so communications are exceptionally good. For this reason, Sattumadurai had become a regular meeting place for men from neighbouring villages, who met to gamble and drink on the temple premises. Many men drank heavily, and the people had a reputation for being difficult and cantankerous.

The idea for the palm-leaf weaving centre was born when the women of the village asked for help from CHAD in starting a mathar

sangam', or women's group. After much discussion, the group came to two conclusions: (a) that the community's main problem was not enough money coming into it, and (b) that their own main problem was that even when their husbands were earning, a fair proportion of the income went on alcohol and gambling, and never found its way to the family at all. Would they just resign themselves to the situation? Or would they learn a skill that would enable them to make money for themselves? And so they came to CODES.

CODES was aware, through the health team, of the problems faced by families in Sattumadurai, and they were anxious to give the women as much support as possible. Their first problem was premises. CODES' support for any new co-operative is conditional on the community finding a home for it, but the men of the village were deeply suspicious of the whole venture. The very idea of wives going out and working away from their proper place, the home! Then, eventually a CODES extension worker persuaded the village leaders to hold a meeting, or 'panchayat', at which it was decided to allow the women to use the open space in front of the temple - the very place where the gamblers met.

Not for long, though. No sooner was the 3 - month basic training over, than word got round that it was highly unsuitable for women to work on temple premises : a religious excuse to disguise the real one, which was that the men were not going to be ousted from their meeting place. Again the women were homeless.

But this time it was different. Now they were all trained and ready to earn money. They'd worked together for three months and shared their dreams. Nothing was going to stop them. And eventually, impressed by their commitment and dedication, CODES agreed to buy the building which they and all the other groups now use as a centre.

To Chandi, the centre has meant new life. As a good Indian wife, her home was her world, where she was usually alone and often idle. With a handicapped husband, she had very little money to support the family, and little chance of educating their children as she wanted. But that was her destiny and she accepted it.

Chandi now sees this sort of fatalism as a fraud, or a blind alley. For her, the world changed on the day she sat down with the mathar sangam and realised that problems have solutions. Now she has her own income and can decide how to spend it. She can give the family a decent living standard and her two boys a future. "My children should have something better," she says. "I want them to be happy."

Not all the women in Sattumadurai were attracted to the craft centre. Craft work was all right for the few, or the young. What was needed was something that was relevant to the local economy, and involved more people. After further discussions at the mathar sangam, they agreed, with CHAD's help, to start a dairy society, and in 1982 this was inaugurated with about 60 members.

But they were not yet out of the woods. The society had been started with loans from the bank, and it was decided that the profits, inititally at any rate, should go towards repaying those loans. The problem was that not one of women members was literate, so when a male member came forward and offered to do the job, everybody heaved a sigh of relief. He was appointed Secretary, and CHAD handed over management of the society to the members.

This was a mistake. Although the society had always been intended to benefit women, there was nothing in the by - laws to say, so. With the encouragement of the village men, the male secretary started to dominate the co-operative, and the premises became a meeting place for the men. The women became too frightened to go there at milking time, and the whole venture showed signs to defeating its own objective.

Then, the society started to show a loss. Loans were not being repaid. The (male) secretary was deducting the loans from the members all right, but the money was not being paid into the bank. Evidence of fraud and mismanagement gave CHAD the opportunity to come back and try to restructure the society completely so that the women's interests were protected.

It took months. The village men objected violently to having women in charge of the society. Relationships between women and men, already at rock-bottom, could only get worse if the women acquired economic power, they said. But eventually, after six months of acrimonious, difficult discussions, it was agreed, and in mid - 1984 the Sattumadurai Women's Dairy Co-operative was founded.

So the long years of struggle have paid off. The dairy co-operative is now at the rear of the craft co-operative, and the whole enterprise has an air of noisy goodwill.

Chandi sees the problems of the dairy society as inevitable. The men, she says, just don't understand. (She makes the 'don't' sound like 'won't'.) It is the men who turn the whole thing into a battle for power, not the women. All the women want is to look after their families better and to have some choice about how the money is spent. They have no wish to challenge the authority of the men. It's

just, she says, that women are better at some things than men are. "Why don't they just leave us alone to get on with the things we're good at ?" she asks, puzzled.

Why, indeed? Perhaps because the women have something they would like to have themselves. 'Otrumai', Chandi calls it. Unity.

And through unity, they have won freedom. 'Swathandram'.

V. LOVE IN A COLD CLIMATE

Change - even welcome change - has its price, and the CHAD experience is no exception. Neither Hepzie nor Dharmalingam could have guessed where it would lead them.

In 1983, Hepzie's mother became very ill with diabetes, was admitted to CHAD Hospital, and Hepzie came too, to look after her while she was there. At the time, aged 21, she had just finished a supervisor's

...ng the paddy. Hepzie and Dharmalingam at work

training at the North Arcot Co-operative Wholesale Society in Vellore and was busy applying for jobs. In hospital for eight weeks with her mother, she took to the routine like a duck to water, helping generally in the ward, changing dressings, testing urine. She became fascinated by the idea of community health and found, after she got home, that she missed the hospital and the work. When one of the consultants suggested she should apply for work with CHAD, she leapt at the change.

Her one - year training at CHAD Hospital included practical work in the wards and the labour room, gynaecology, leprosy, TB and rheumatic heart disease, as well as classes on rural and community development. The second year's training was in the field, where she learnt the skills of interviewing, conducting surveys etc. And then at last she was accepted by CHAD as a fully qualified Health Aide, covering the two villages of Kilarabampet and Najukondapuram.

She loves the work. In hospital you only see the sick and the suffering, but working in the village, helping people get better, you gradually become an accepted part of the community. You get to know the families, and as the people come to trust you, they bring you their problems. Then, in 1984, she met Dharmalingam, a CHAD extension worker in the villages she covers as a Health Aide.

Dharmalingam, who was unemployed at the time, got involved with CHAD when the first year medical students came to do their Community Orientation Programme in his village (see Ch. 3). He became friendly with some of the students, and very interested in what they were doing. For him, the climax of the fortnight came when, as part of the concluding celebrations, he took the star part in a drama based on traditional beliefs about infertility, and won a prize for it.

From then on Dharmalingam became a sort of voluntary liaison officer for CHAD, bringing patients to CHAD Hospital, contacting the veterinary adviser, helping with development activities. So when the post of extension worker in the village fell vacant, he applied, along with 90 other applicants, and got the job. His three - month training included 20% health and 80% development. He learnt about socio-economic problems and how to approach them, the status of women and its implications for the community, and issues of leadership within villages and how to handle them.

Now, working alongside the health and development committees in his villages, Dharmalingam is responsible for co-ordinating agricultural and veterinary activities and for supporting the dairy co-operatives

He goes out with the mobile clinic when it visits, so that communication is maintained and health and development activities fully integrated. He looks after the youth clubs, supporting them in their social activities and sometimes selecting members for training. And he encourages unemployed young men to take responsibility within the community by digging soakage pits or cleaning roads.

He too loves the work. There is nothing like the feeling you get when you've helped a poor person plan a programme that will bring them out of poverty, or helped settle a land dispute or a marital problem. And then, Hepzie joined the health team and he fell in love with her

What, on the face of it, could be more suitable ? They were both based in the same village, both committed to the same work. There was only one problem : Hepzie and Dharmalingam belong to different castes. Hepzie's family are Harijans, and Dharma's are Vanniars. It was not just the families who objected . the entire village was up in arms. In loving each other, the two young people were flouting the taboos of the community.

A village meeting excommunicated them. On the day they married (in secret, in town) Dharmalingam's family held a funeral for him and confiscated all his property. Over a hundred people marched to Hepzie's house, some of them brandishing knives, but fortunately she was not at home. Her family was, though. Hepzie has no doubt at all that if they hadn't been useful and repected members of the community, they would have been murdered.

The first few weeks were bad, but they didn't give up. Gently, gently they eased their way back into the community. CHAD and CODES staff went to talk with the leaders and to try and pacify the people. It was agreed - at the official level, at any rate - that the couple should return to their work.

On Dharmalingam's first visit, he borrowed a scooter, drove rapidly round the village without stopping and disappeared in a cloud of dust. For months, he made arrangements for a quick getaway if he should be attacked But the village leaders valued his work, and his youth clubs supported him. Eventually, passions faded, and he and Hepzie now do their work in an atmosphere as near to normal as it can be.

They still can't make a home in the village, though They live in a rented house in Bagayam, with Joy, their eighteen - month - old daughter, and commute. Hepzie's father has visited the baby, but Dharma's family still will not acknowledge his or his child's existence.

He has, however, managed to get his property back, and they hope that within the next three or four years things will have calmed down enough for them to build a house there.

But even in their darkest moments, neither of them has ever regretted the day they got involved with CHAD. It's given them so much knowledge, so many new horizons, so much confidence and experience that they feel they could never go back to the way they were. They don't earn much, but the job satisfaction is tremendous, and their status in the community is as high as a landlord's. Their home is comfortable, welcoming and full of laughter. That, for them, is the CHAD experience. That, and their love. And, of course, Joy.

VI. THE GOOD SHEPHERED

It is a bright, hot afternoon. The village straggles along the dusty road : clusters of traditional mud houses; a group of government - built box houses with red tiled roofs; two or three better homes with open, pillared verandahs. In the middle of the road, a skinny dog sleeps, dangerously close to the clanking wheels of a bullock cart. But most of Sholavarum's vigorous human and animal life has retreated into the shade.

Between the houses, there are glimpses of ploughed fields; pale, feathery sugar-cane; brilliant green patches of paddy. And behind, on three sides, the sharp, sudden hills. There are scrubby forests on their lower slopes, but their tops are etched in giant, granite sculptures against the whitish, shimmering sky. There are the foothills of the Jawadhi Hills, stretching from the southern end of Kaniyambadi block some 150 Km to the south.

We turn off the main street towards a small temple, and a gaggle of ragged children appears, apparently from nowhere. Mannu Mandiri's house is on the right. It is the traditional local house of baked mud, about two by two-and-a-half metres, and occupied by seven people. Its deep thatched roof is 2 metres high at the ridge, but at the front it comes almost to the ground, giving a deep, shaded verandah area, some half a metre wide. The floor is hard, baked cow-dung, very smooth, cool and comfortable, and also mosquito-resistant. Across the path is a similar structure where Mannu Mandiri's sheep live. Mannu Mandiri is a shepherd.

Mannu Mandiri also has leprosy - he, his wife Kannamma and four of his five children. Kannamma also has epilepsy and has been deaf since she was twenty. The last straw came when, worn down by poverty and lack of food, she developed pulmonary tuberculosis. It was because of these multiple health problems that the family first came to the notice of CHAD. But as it turned out, it was not the health problems that presented the biggest challenge.

Today, advances in curative medicine have made the treatment of leprosy straightfoward, if long-drawn-out. The main problem is that it is very difficult for people with leprosy - even if they are cured - to find paid employment. Although things are improving, there is still fear of infection, and the so-called 'leper' has been socially stigmatised from time immemorial.

Mannu Madiri was no exception. He used to go out with his eldest son collecting firewood, illegally, in the forest, until his hand deformity - the familiar 'claw hand' of leprosy - became too acute for him to cut and carry the wood, and his feet too damaged for him to walk upto the hills.

Mannu Mandiri and his sons have leprosy. Now they benefit from of CHAD's sheep-rearing programme

His wife's health was too bad for her to work at all outside the home. His three daughters had left school at the age of seven. Even without the leprosy, there was no hope of finding them husbands with no money to give for dowries. And the younger son (the only one the disease had spared) was still a baby. None of the family could read or write.

The medical management of the family's health problems has not proved difficult. Treatment is provided by CHAD's village-based primary health service and mobile leprosy team. However, it soon became clear that there could be no long-term improvement in their situation until Mannu was able to earn enough money to feed them all.

In 1984, CHAD's sheep-rearing programme gave Mannu Mandiri 20 sheep and a ram, on condition that within two or three years, after his own sheep had bred, he returned the same number of animals, to be passed on to another needy person. This he has now done. In addition, he is able to sell ten or fifteen animals every year, bringing in Rs.300/- to 400/-per month. He is one of some 30 leprosy sufferers in Kaniyambadi who are beneficiaries of this programme.

To find Mannu Mandiri, you have to walk out of the village, across the paddy, over the fields, through the scrubby forest, almost as far as the lower slopes of the hills. And then you see an almost biblical sight : the gaunt, straight man with his claw hand, striding across the plain, his sensationless feet protected by the thick rubber 'chappals', or sandals, made for him specially by the cobbler attached to the CHAD mobile leprosy team. His two sons are with him, the elder one's back clearly marked with the shadowy patches which are the legacy of leprosy. They are driving a flock of about forty silky-looking sheep and lambs (half of them belonging to a neighbour), while Mannu himself leads the rebellious ram by its horns.

Indian sheep are not at all like European ones. They are trim and glossy, golden brown or sandy pale. Indeed, it is extremely difficult to tell them from the ubiquitous goats, until you realise that sheeps' tails turn down, while the goats' tails turn up. You quite see the difficulty of separating one lot from the other.

At home, Mannu Mandiri's three daughters are busy preparing the family's meal. At fifteen, the eldest is ready to marry. Now that her leprosy is cured and he can afford a dowry, her father hopes he will soon find a husband for her.

In five years, the sheep have changed Mannu Mandiri's life. He grumbles away about the work, and about the cost of everything, but

without once taking his eyes off them. Can he tell which are his animals and which are the neighbour's? A gleam enters his eyes. "Do you want me to separate them?" he asks. Three minutes later, it is done. He is a good shepherd. He knows his sheep, and his sheep know him.

VII. A CHILD IS BORN

It is a heavy, sunless midday at Sholavaram. The red dust of the yard seems to be everywhere, inside and outside the house. A big black cauldron of water simmers over the wood-fire, a huge crow, even blacker, perched hopefully on its fim. Cows stamp and shift restlessly in the palm-leaf byre. A cadaverous yellow dog sleeps, scratches itself, urinates, snaps at a few flies and sleeps again.

Shanti wanders round the yard, groaning. She stumbles back to her straw mat on the porch and kneels, kneading and dragging at the old knotted sari that hangs from the rafters. In the shade sits a group of

Listening for the foetal heartbeat

cheerfully chatting women : Shanti's mother and grandmother; two neighbours - sometimes more; Dumankarli, the local Government nurse; and Saraswathy, CHAD's Part-time Community Health Worker (PTCHW) in the village. Shanti is 17, and in labour with her first child.

Saraswathy came to Sholavaram at the age of 13, when she got married. For years, she worked mainly in the forests, cutting wood, with breaks for seasonal labouring in the fields at day wages, or for having babies. She has two surviving sons and a daughter, all in their twenties.

But Saraswathy had another skill. Her mother and her mother-in-law were both traditional dais, or midwives. Her mother took her little daughter out with her on deliveries from an early age. As her mother-in-law's assistant, she became a familiar figure in the village from the earliest days of her marriage. So when CHAD started asking round the village for dais, she was the obvious choice. She applied and was called for training.

She spent three months at CHAD Hospital, mainly in the labour room, conducting deliveries and learning the principles of sterilisation, palpation, ante-natal and post-natal care, and logging the progress of labour. She learnt to recognise when hospitalisation was needed, and how to keep records. Then she spent a further month in a government hospital.

Saraswathy is the front line of the CHAD health team at Sholavaram. She knows the village intimately. Her years of caring for families and bringing babies into the world have made her a respected member of the community and a friend to many of its members. She knows everything that goes on. Sometimes people call her 'doctor', which she likes very much.

She treats minor ailments and injuries, conducts deliveries, and joins up with the mobile health and leprosy teams when they visit the village. She chases up candidates for immunisation or antenatal care, and can refer patients to CHAD Hospital if necessary. She reports births and deaths, and keeps records of all pregnancies and under-fives in the village.

Her job is called 'part-time', but she finds this unrealistic. In practice she is on call all the time and poeple complain that she's not doing her job if she isn't available. This means she cannot consider working in the fields at harvest-time, or most of the other ways of eking out her income of Rs.75/- per month. She has recently got a job cleaning the panchayat board building, for Rs.35/- a month, which she likes because they have a TV there, and a radio.

In recognition of this predicament among low-paid village workers, and as part of its efforts to encourage dairying in the villages, CHAD has a scheme for supplying cows to PTCHWs, and many of them now receive valuable extra income in this way. To her great sadness, Saraswathy's cow died. She had hoped to be able to sell the milk through the Women's Diary Co-operative, as so many others are doing. Her husband is a woodcutter, but he is an alcoholic and frequently drunk. She rarely sees any of the money he earns.

Nobody could call Saraswathy's life easy : but she can't imagine any other occupation that would bring her the same job satisfaction or status in the community.

Shanti gives birth at 2.56pm, on the baked-mud floor of the porch, after eight hours in labour. And it's a beautiful boy, 3.65kg on Saraswathy's portable scales. "These are not sterile conditions," she says, and indeed the only sterile thing in sight is the PTCHW's midwifery kit, supplied by CHAD, containing razor-blade, cord, suturing needle and thread, a cake of soap.

The two nurses attend to Shanti (a two-inch tear needs stitching), while the other women tackle the rest of the mess. They tie the cord and cut it, wash the baby, upside-down, healthily squawking, over the stones by the woodfire, and wrap him up in white cotton khadi cloth. Then he and his mother are carried inside and laid on a clean straw mat on a pile of hay. Everyone is very happy, and a bag of boiled sweets is handed round, to celebrate. Neighbours start coming in, with little gifts-bananas, some milk - or just to look and go away. And Shanti lies there, looking as if she had given birth to the universe and found it good.

You can see why Saraswathy likes her job.

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Months later, the good news is that the baby is doing fine. But three days after he was born, his father came from his work in the town and announced that he'd been made redundant. His wife and son must stay with her family for a bit longer, till he found another job. At the moment, he had no money at all to buy food for them, and unless he could borrow money for the rent, he would shortly have no home for them either. That was the bad news.

A week later, the father was back again in Sholavaram. Still no job. He had been drinking. By the morning, he was dead. He had hanged himself in the house of friend, down the street.

For poor people in India the battle for survival is fought on rough, steep and slippery ground. The story of Subashini shows how precarious a foothold you have. If like the huge majority of the population, you live from hand to mouth and have no resources whatever to fall back on in times of trouble. Once lose that foothold, and you may be right in thinking that there is no way up again.

Shanti and her son will probably be all right. She is young and beautiful, and will probably marry again – the baby, fortunately, is a boy. But widowhood is stigmatised in village cultures. Because of her husband's suicide, people are cautious about associating with her. And her family have enough problems of their own without supporting a daughter whom they thought they'd got rid of and a growing grandson.

For those who are clinging to the rock-face of survival, medical care seems almost a luxury. The first necessity is enough to eat and a roof over your head.

VIII. KATHEKALATCHEPAM AND VILLAPATTU

At the heart of all larger Tamil Nadu villages stands a small covered stage, usually colourfully draped and festooned with festive streamers. Usually it is somewhere near the main bus stop, or crossroads. But if you have trouble finding it, you often have only to listen for a moment and the loud Tamil music played over the loudspeaker will lead you to it.

Tonight, you can't miss it. The whole village is gathered here, and the music is interrupted by laughter, cheers and ribald cat-calls. Buses, lorries and bullock carts jam the approaches to the village, because the crossroads has become an auditorium, and every time a vehicle passes the whole audience has to scramble out of the way.

In the middle of the stage, cross-legged, sits a small man in a cream silk shirt and dhoti. He is draped with a luscious garland of pink and white flowers. Just now, one hand cupped beneath an imaginary breast and the other coyly primping his hair, he has 'become' a shyly flirtatious young girl. His 'lover' - a tall young man who can hardly keep a straight face himself - looks on, he hopes, adoringly. The crowd roars its appreciation. Then the band strikes up, a young woman sings a song, the children, bright-eyed, sway and clap, and some of the adults sing along softly with the familiar music.

The drama is a love story. Boy loves girl, wants to marry. Parents delighted. All is well until someone tells the boy's mother that her future daughter-in-law has leprosy. Panic! Leprosy in OUR family?

Soon all of us will be infected and the grandchildren will all be born with it etc etc. And oh, the SHAME! So the boy's parents turn against the girl - who indeed did develop a leprosy patch when she was little, but has been cured for many years now. There is much ranting and raving and noisy, tearful despair. The audience loves it.

But help is at hand. A (better) friend explains to the boy's mother that her fears about leprosy are groundless. Together they go off to see a leprosy doctor at CHAD Hospital, who tells them all about it. The girl is completely cured. Nobody else in the family has the disease, which isn't, in any case, very infectious. There is no danger whatever to future grandchildren. There is no stigma. The future daughter-in-law is normal, beautiful (more seductive behaviour) and healthy. Disbelief - belief - conviction - and RELIEF! Everyone is happy. The young couple are betrothed, there is more rapturous singing, and the drama draws to a close. Delighted applause, much hugging and congratulation, and the audience disperses into the warm night. Cast and musicians load their gear onto the blue CHAD leprosy van, climb in and are driven off, hot, hoarse and happy, back to Bagayam, home and bed. It is nearly 11 p.m.

Marutha Muthu, the blushing bride in this piece, is CHAD's health educator. A former development worker, he now puts his whole energy and all his talent into health education, and the drama we have just seen is one of many that he has written for the purpose. Subjects range from malnutrition and scabies to immunisation, family planning and rheumatic heart disease.

Marutha Muthu is a passionate believer in the effectiveness of traditional media. This leprosy drama is a popular form of entertainment called villapattu - a story/drama interspersed with 'soap' songs which everybody knows. In Indian villages, TV and radio are still a rarity, reading for pleasure confined to the very few, and a visit to the cinema means an expensive trip to the nearest town. But the attraction of folk drama is universal. Everybody comes, and everybody joins in. CHAD's research has shown that this is the most effective of all methods used in community education.

On this occasion, the drama has been the climax of a whole day event in Anaicut, the main village in the neighbouring block to Kanivambadi, where CHAD is working with the Government to develop existing resources. 2000 people - including children from six different schools - attended an exhibition, open all day, in the village hall. The main focus was leprosy, and posters, special shoes, photographs and artifical limbs were on show. Nutrition and family planning material was

Balwadi children are cared for while their mothers are at work in the fields

also shown. This has been a large - scale, highly organised community event.

On a smaller scale, CHAD encourages all its associated groups to join in health education activities. Craft groups, women's clubs, youth clubs and balwadi mothers are all ideal contexts for it. The main educational tool here is the flash card, a large picture used by the leader as a visual aid during a discussion or presentation.

At the individual level, health education is an essential part of treatment, and a priority for all members of the CHAD health teams. If a child has scabies, it is no use just giving her medicine. What is needed is full instruction about what the disease is, about treatment, about other places where the organism is likely to be hiding and how to get rid of it, about precautions to be taken by the rest of the family.

It is a source of pride to CHAD that it has virtually eradicated scabies from Kaniyambadi block. This uncomfortable and unsightly disease is caused by a mite, which embeds itself in the skin and sets up an itchy infection. This is then passed on to other parts of the body by scratching. Scabs and suppurating sores develop, and the infection is very easily passed on to others through towels, clothes, bedding or personal contact.

In 1975, the 1st year medical students held their Community Orientation Programme (see Ch 3) at Nanjukundapuram. They diagnosed over 300 cases of scabies in the one village, and there was evidence of a similar prevalence in other villages.

They organised group flash-card demonstrations around the village. Then, one day, all the children with scabies were asked to assemble at one of the four or five different wells. Students and staff themselves bathed the children, using coconut fibre and soap, until the scabs came off. Then the children dried off in the sun, and benzyl benzoate was applied to the now-clean skin. Meanwhile, clothes were washed and left to dry in the sun, and other members of the family supplied with medicines and ointments. The camp finished with dramas, and kathekalatchepam (ballads) designed to drive home the message.

This procedure was repeated at the next three COPs. In the meantime, health and development workers combined in implementing a full-scale scabies education programme. As a result, within ten years, this horrible disease is now no longer endemic in Kaniyambadi.

Which is why, for every single person working in a CHAD programme, health education is a major priority. It is also the reason why, for CHAD, the health education officer is a very important member of the team.

Medical Education at CHAD 3

"Primary health care CANNOT be taught in a vacuum."

(Dr. Abraham Joseph, CHAD)

It is a chilly December dawn, the last star and the crescent moon a faint glimmer in the west. The pink tide that heralds the sun gathers round the hills and flows across the sky. In the village, the fires are already lit. Women converge on the well, shining brass water pots balanced on heads or hips, while small children stumble out to the fields for their morning ablutions.

A tall, bent old man with one tooth totters down the road, out for his morning constitutional. He stops when he sees the approaching knot of medical students. He has a bone to pick with them : every time he takes the medicine prescribed at the village clinic, his cough gets worse. The students listen sympathetically and ask a few questions. One of them gets out a stethoscope and listens to his chest. He delves into his pocket and produces a note : although he can't read it, this is the chit referring him to the CHAD Hospital tuberculosis clinic. It is the fourth day of the first year Community Orientation Programme, and this old man has been identified by the students, sputum-tested, and diagnosed as having TB. Five minutes chat, laughter all round and the group continues on its way.

Primary health care was a priority at CMC long before it achieved the international priority it now enjoys. Now one of India's most famous medical centres, certainly one of its most prestigious medical schools, CMC has retained, at the heart of its ideology, its original commitment to serve Vellore and the surrounding district, and to educate every one of its students in the realities of health care in the community.

In 1978, the WHO's Alma Ata Declaration "Health for all by the year 2000", stressed the overriding importance of integrated community health programmes in developing countries. In its report on the Reorientation of Medical Education (ROME), the Indian government spelt out the implications of this policy for medical education. Now, in

1989, the new Medical University of Tamil Nadu has stated its commitment to making community health a major curriculum priority. But this is a commitment that CMC acknowledged from its foundation, implemented in 1957 through its Community Health Department, and has been putting into practice for over thirty years.

But why CHAD? Dr Abraham Joseph, CMC's Professor of Community Health and CHAD's director, is adamant that primary health care cannot be taught in a vacuum. Most medical students come from middle-class, urban backgrounds and many have never been in a village in their lives. And yet 76% of India's population is still rural and 40% to 50% live below the official poverty line. Classroom teaching means nothing when the context of the work is so alien to the experience of the students.

CHAD today is, in its own right, a model integrated health and development programme, and professionals come from all over the world to visit it. But the real justification for its existence, as far as CMC is concerned, is its role in the education of interns, and of medical, para-medical and nursing students.

The first phase of CHAD-based training comes in the first year, with the Community Orientation Programme. COP, as it is called, is unique to CMC. It consists of a three-week block posting which exposes about eighty medical, physiotherapy, occupational therapy, nutrition and biostatistics students to experiential problem-solving learning in a community setting.

After three days of introduction, the students go and live for two whole weeks, full-time, in one of the 68 villages served by CHAD. They are immediately faced with the realities of rural life. They build and service their own latrines; they dig soakage pits; they test and chlorinate the water supply and draw water from the well; they prepare the types of food available in a village, cooking it on an open-air wood fire with the help of a team of local cooks. By the end of the fortnight they have gained first hand experience of the problems of surviving and keeping healthy under village conditions.

The students work in multi-disciplinary teams, encouraging that respect for the input of other disciplines which is so essential to community based health care. First of all the groups are divided into sub-groups consisting of two or three students. The exact size of these sub-groups is dictated by the number of Tamil-speaking students present : CMC draws students from all over India and beyond, and many have only the sketchiest knowledge of Tamil. The groups now spend four days, with

Community Orientation Programme
A first year medical student weighs the baby

the help of the staff, conducting a house-to-house survey of the village, using a pro-forma constructed by the Department of Community Health. This covers demographic and socio-economic factors, education, food habits and preferences, water utilisation and sanitation, child-rearing practices, prevalence and attitudes to disability, beliefs about health and sickness, the use of home remedies and the role of indigenous practitioners.

Using appropriate sampling methods, they also conduct an in-depth investigation of a specific common problem - anaemia or tuberculosis, for instance - gaining experience in interviewing skills, and in conducting simple tests under village conditions. Blood samples are sent back to CHAD Hospital for testing, and cases identified are referred to the camp clinic.

With the help of the staff, the students process the data they have collected, and the statistical analysis techniques taught earlier in the course are now put into practice. Great care is taken to see that data is collated in such a way that the findings of the various surveys are relevant and useful in the village context. The results are presented and discussed by all students during a two-day session after the camp is over.

Guest speakers visit COP to talk to the students about the various government and voluntary services available to help the rural population. These talks are designed to emphasise the vital part that agricultural and socio-economic development have to play in the health of the community. They cover such topics as government health services, banking, agricultural bureaus and animal husbandry departments.

Every evening, villagers are encouraged to bring their problems to an outdoor clinic, which treats cases referred during the day and may refer patients to base hospital for treatment. This clinic always attracts a good audience, and provides an ideal opportunity for health education.

Towards the end of the camp, the students present special case studies of individuals suffering from common illnesses which they have identified themselves. Senior faculty members from CMC are invited to be present at these presentations, and to help students understand both the socio-economic roots and implications of the problems and the practical aspects of finding solutions in the village context. The presence of other specialists underlines the importance of community health, not just for the Community Health Department but for every department in the hospital

Health education is stressed throughout the programme. Students conduct dramas and skits on such subjects as alcoholism, nutrition and family planning, and at the end of the fortnight they put on a major display covering nutrition, immunisation, family planning, sanitation, common parasites, mosquitoes etc, based on the findings of the survey.

Finally, students and villagers combine in a wonderful musical and dramatic event, chaired by village leaders and attended by the whole village. Above all, COP's most memorable quality is that it is highly enjoyable, and students and villagers alike are often extremely sad when it is all over. One of the commonest reactions articulated in the students' feed back is that it doesn't last nearly long enough.

A Shramad dan. Villagers and COP students plant neem trees together

One only has to see the excitement of the students and the growing trust between students and community to realise what a powerful experience this is, as an entirely new way of life unfolds before them. One ex-CMC medical student described his first COP as "a kind of awakening". And it's not just an awakening to an unfamiliar concept of medical care, but the dawning of light on the half-feared and the half-known : the harsh, but rich and diverse reality of the lives of the vast majority of their fellow Indians.

In the course of time, the students will forget some of the factual input to the programme. However, follow-up studies have shown that the

attitude changes are still there five years later. Even for those who do not go into community health, disease will never again be merely a case history wrung from a nervous patient in an unfamiliar hospital clinic. Rather, the patient will be a real person with a real background, whose problems are probably the product of that background and whose cure cannot be effected in isolation from it.

The second phase of the Community Health Programme takes place in the first clinical year, when students are introduced to the government health programmes, as well as principles of epidemiology and health management. It includes field investigations of how those services operate, made possible by CHAD's close relationship with government services in the area it serves.

In the second clinical year, there is a further two to three week posting. The students are divided into groups of five or six and are asked to make a community diagnosis of a particular problem within a defined area, and then plan and implement a community health programme using the data collected. Topics covered may include immunisation, family planning, relations between CHAD and government services or the organization of community-based maternity services. To do this, students use the staff and resources of CHAD and are encouraged to call upon various members of the health team as required. Many students say they find this the most satisfying of all their student postings : it enables them to work on their own in the field, and they can see what they have learnt on previous assignments coming together in a way that is practical, relevant and useful.

The final phase of CHAD-based training for most graduates is the interns' programme. Out of the one year's compulsory internship, 3 months is spent with the Community Health Department. CHAD has fifteen resident interns at any one time, and the aim is to prepare them to become 'basic doctors', with practical knowledge and experience of community health practice.

As basic doctors, they should be able to diagnose and treat common complaints without the use of sophisticated equipment, and learn when to transfer patients to specialist or larger hospitals. They must also perform simple surgical procedures, such as tubectomy, hydrocoelectomy or caesarian section, and do simple laboratory tests. Interns conduct outpatient clinics, under the direction of a senior doctor. They spend two weeks on a CHAD Hospital ward, where they are responsible for the general management of post-operative and other patients requiring admission.

Vigorous discussion at an early morning presentation by interns

They pay regular visits to the villages. They are part of the leprosy teams and of the mobile clinic teams that support the Part-time Community Health Workers and health aides. They learn to view the patient not just as an isolated individual with a clinical disorder, but as the 'sign' of an environment that is unhealthy, both physically, environmentally and socially. An environmental problem is viewed as a community disease, and the patient as a 'sign' of that disease.

Community disease cannot be treated by medical means alone. Poverty, poor agricultural practice, inadequate sanitation, superstition, illiteracy : all these require different, non-medical approaches. The interns are encouraged to become involved with CHAD's developmental activities and to attend mathar sangams, leaders' meetings and schools.

At regular seminars, interns present studies they have made of particular areas of CHAD's work. These can lead to exchanges that uncannily echo the dialogues taking place in the journals and conferences of the worldwide medical establishment. For example, the pros and cons and the practical implications of community based rehabilitation may be addressed. There have been heated arguments about the morality or efficacy of socio-economic programmes that concentrate on women. But whatever the issue, the discussion will be rooted not in high flown theory but in five year's experience of the reality of village life.

Emergency stop. Jawadhi Hills. An intern examines a patient with a foot ball - sized abdominal growth

CHAD plays an equally important role in the education of nurses and nursing students. At CMC, community health has always been a priority, and Ida Scudder's first students were not doctors but nurses. Today, with the universities placing much greater emphasis on this part of the curriculum, CMC finds itself once more in the forefront of nursing training in India.

CMC's two basic nursing qualifications are the graduate course and the Certificate course, which take four and three years respectively. Both courses include an increasingly substantial CH component, block placements being divided between CHAD, RUHSA (the Rural Unit for Social Affairs in K.V. Kuppam block), and the Urban Programme, where they work with the government set - up.

In their first year, the BSc students do a week's Community Orientation Programme at RUHSA, followed by a four - week posting to CHAD or the Urban Programme in their second year. The three - month stint in the third year is divided between CHAD and the urban area, and in the fourth, they spend a total of seven weeks joining in the work of the health teams at one of the three centres. At the end of this course they are qualified Community Health Nurses.

The three - year diploma course involves an initial six - week urban placement, when the students join the health teams in visiting homes in the town. They are also taken to industries, retail establishments, slaughterhouses and other urban institutions, getting an idea of the broadest implications of urban work in community health. Under the new curriculum, they will have to do a further ten - week placement in the third year. Before they can qualify fully as community health nurses, certificate nurses need to do the ten - month Diploma in Community Health and Family Planning, involving six weeks work experience at CHAD, joining in all CHAD's activities. They assist at tubectomy operations and at the insertions of the 'copper-T' intrauterine devices.

On all these courses, the emphasis is on practical experience in the community. Students go out with the mobile health teams, assisting at PTCHW clinics and doing home visits with the team. They learn how to treat mothers and children in their homes, and they learn their domiciliary midwifery with the help of the CHAD health teams.

CHAD also runs the community health component of CMC's MSc course in nursing - one of only four such courses in India. All MSc students have a four - week posting to CHAD, and community health specialists have more. In the second year of the course, they conduct a piece of research based on an urban or rural situation, leading to a dissertation.

Usha David, who is now a lecturer in community nursing at CMC, says that in her dissertation she did a study of post partum mother's beliefs and practices in Vellore town, and differences between Hindu and Muslim families in this respect.

Not everyone likes community health nursing, says Usha. It depends on you. For her, it's the independence you have that is the great advantage. In hospital, you are dependent on the doctors for directions. In the community, you are your own mistress : you work in your own way and make your own decisions. Much more satisfying, she says.

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And that is the reason why primary health care cannot be taught in a vacuum. CHAD has been working the roadsides and villages of Kaniyambadi block for over thirty years now, and few people remain untouched by its presence. Its contribution to the communities is beyond question, and its staff are a familiar, trusted part of the villagers' lives.

Students are often concerned that they are 'using' the villagers in a way that is both intrusive and exploitive. The answer is that if that trust did

not exist, and if the villagers were not aware of CHAD's input, there is no way that they would co-operate with the medical education programmes in the warm and positive manner they do. Community trust is an absolute pre-requisite of community health education.

It is a common experience for visitors to poor, struggling communities to go away with a sense of hopelessness, and a feeling that the problems they have seen are so huge that there is no answer to them. Such a view reduces primary health care to a sort of patching-up operation on a vessel that's sinking anyway. It is a view held - and occasionally acknowledged - by a fair proportion of the medical profession.

Because of the presence of CHAD, no CMC graduate can go into the world with such an impression. Progress can be amply demonstrated. Ten years ago, 30% of babies were branded to ward off disease; today the figure is about 5%. Infant mortality has dropped from 90 per 1000 in 1981 to 50 per 1000 in 1987. Isolated and illiterate women are learning to make money and to develop their own potential. The immunisation rate has risen from 50% to 87%. Cured leprosy patients are being given a way of making a living with self respect. There is a fair chance that, if a problem is identified, there will be some way of helping.

So students don't just learn about problems, they learn about solutions as well. And by the time they leave, they have a model for Community Health and Development which is totally professional, practical, tested, and which has formed an integral part of their five year training.

'Tell me - I will forget
Show me - I may remember
Involve me - I shall understand'
(ancient Chinese proverb)

Seeds in the wind 4

"I was given 2 litres of blood and sent back to India for treatment. Nobody expected me back in Bhutan, but I was back in two months."

CMC Graduate

Mid - morning in the Nilgiris Mountains. The red dusty track wanders through tangled forests. The morning sun glances through tall, skinny trees, making bright shadows on the undergrowth below; cascades of brilliant flowers and savage thorns claw at the jeep as it lumbers past.

There are eight of us inside : Deva and Roopa, the youthful husband-and-wife medical team which is trying to set up a primary health service in the remote tribal areas around Gudalur : myself, an observer, and five young rabbits, one male and four female, destined for one of the project's part-time village health workers. We come to a river. Deva changes gear and the jeep ploughs through. This ford is impassible in the monsoon. We grind up the river bank, and then the track divides. The jeep stalls. We all groan. Roopa clambers out over the rabbits, opens the bonnet, makes an adjustment, and the engine stutters into life again.

Eventually, the forest thins. The track winds across a hillside, then plunges downwards. We climb out and collect the gear. News has come of a sick patient in the next village. From here we will have to walk.

Half an hour, 2 kms later, hundreds of feet further down, we come upon a cluster of small, mud-faced tribal huts. Word of our approach has gone out and we are met by the village health worker, a girl of about fifteen who is, they say, very keen and efficient. We are escorted to a square, thatched hut at the end of the village. A youth is sprawled on the verandah, not very ill. A quick examination, a sputum smear. Probably he has tuberculosis. We turn to go. But some kind of argument is in progress. It becomes apparent that within the house there is another patient.

Eventually, reluctantly, a young man crawls out of the darkness onto the verandah, his body bent with grief, a tiny, shrunken figure held

tenderly in his arms. The baby is clearly dying. Its flesh has retreated, leaving only bones covered by folds of skin. A white froth comes from its mouth, its eves are glazed, and its only independent movement is a strange rocking of the head that seems to be related to its efforts to breathe.

"Oh, shoot", says Roopa. They examine the baby. Tubercular meningitis, they think, combined with malnutrition and dehydration. All, if they act at once, treatable. The baby must go to hospital now, immediately, in the jeep. The father shrinks back, as if he will disappear again into the safety of the house. Within, there are more raised voices. They will not send the baby. It is the mother's decision, says the father. But the onlookers say it is the grandmother, squatting inside in the darkness, who will not allow it. The baby is going to die anyway, they say. Heartbroken, its father starts to weep.

This tribal clinic coincided with Uchar, the day when young men and boys of the Moolakurumba tribe are initiated into the arts of hunting

And no amount of persuasion will move them. Birth, sickness, death : from time immemorial, the rhythms of life have been contained within the community. The village is cut off from the 20th century by the hills, by the forests, by poverty and exploitation, by generations of inter-marriage, by lack of education. The mechanised, antiseptic world of

operating theatres, X-rays and intensive care units is further away than the moon, and far more frightening. If the baby must die it must die.

Hot, and very sad, we trudge back up the hill.

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ACCORD (Action for Community Organization, Rehabilitation and Development) was started by Stan and Mari Thekaekara in response to the urgent need of local tribal people, or adivasis. They moved in, set up house, and were immediately beseiged with requests for help, support and know-how. K.T. Subraminian, a young, energetic adivasi, shared his vision with them. The forests were being systematically destroyed, and he had seen his people's traditional livelihood disappear and the land redistributed to outsiders who could afford to pay for the privilege. He had seen laws protecting adivasis broken or ignored. He dreamed of a new world in which tribal people stood up to exploitation then took and developed what was theirs by right. And that was where ACCORD came in.

ACCORD's activities range from helping people resist the pressure to sell land and helping them cultivate it profitably, to exploring new ways of building traditional houses using locally made cement bricks. One of their most innovative ventures is the planting of holdings as small as half an acre with tea - expensive to plant, but an all-the-year-round crop, and highly profitable. Their community development work has now been taken over by the tribals themselves, who have set up the Adivasi Munnettra Sangam, or Tribals' Liberation Association, to bring adivasis together and campaign for tribal rights. In December 1988, the people of Gudalur were astounded to see 10,000 tribal people march into town to demonstrate about corrupt methods of land distribution.

Deva and Roopa are both CMC graduates, CHAD-trained. When they arrived at Gudalur, they intended to stay three months before going back to post-graduate studies at CMC. Over a year later, they are still there.

At present, government health services only cover a small percentage of the tribal villages, which are hard to reach, and have no official demographic records. The government estimates that the tribal population of the block is about 10,000. ACCORD thinks it is nearer 40 to 45,000. Because the people do not appear on any records, they are not reached by government primary health services. Health workers are able to show a very high take-up for these services, whereas in fact they are missing out a huge chunk of the population. ACCORD's aim is to put these scattered communities on the map.

The participating villages have appointed animators or extension workers, and village health workers on the PTCHW model. The ACCORD team is more like a family than a group of colleagues. With the support of the District Health Officer, they are trying to set up immunisation and mother and child health services, and to win the support of the villagers.

The incident of the dying baby is a set-back. They are filled with despair. Later, spirits rise when they are asked to lunch in a village that has never been specially friendly, only to be dashed by an unpleasant scene with a village leader who wants total health care without appointing a health worker, and refuses to bring his sick child down to the central point where the clinic is held. Joy again when a community worker wins an argument with a government official about the wrong classification of a piece of land, and then despair again when one of the animators is trampled by an elephant retreating from the forests, where everything edible has been destroyed by fire.

Adivasi clinic : two young tribal health workers

When you're at the sharp end of community health and development, the swings between elation and despair are inevitable. But for all that, Roopa and Deva are very happy, happier, they suspect, than any of their former classmates. The responsibility of working on your own is daunting, but the rewards are tremendous. In five years, they hope to

have estabilished accurate records, encouraged tribal villagers to demand existing services, and motivated government health workers to come and work with them and then, finally, without them. Because in five years time. Roopa and Deva plan to move out. By then, they hope the adivasis of Gudalur block will be ready to claim and receive their rights as citizens of India.

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One of CMC's greatest gifts to India and its neighbours is the growing number of its graduates who have been so filled with enthusiasm by their exposure to community health that they want to go out into the field and apply the CHAD experience elsewhere. Not everyone has the opportunity to break new ground, as Deva and Roopa are doing. But scores of CMC graduates go on to missions, mission hospitals, or development programmes elsewhere.

There is general agreement that the CHAD model cannot be applied in its entirety. The context itself dictates the structure of the model, and as part of a large teaching hospital, CHAD has tertiary back - up, relatively lavish resources and an educational mission, none of which features is normally present in other set - ups. But all are insistent that it was CHAD that taught them what was possible, gave them the confidence to go out and apply it, and above all the desire to do so.

Nevertheless, the first exposure can come as a shock. Dr. Gift Norman and his wife Shanti are setting up a programme in the Palamathi Hills in North Arcot district. They are still astonished to find how much you can do without. Setting up drips and performing simple surgery under anaesthetic in a clinic housed in a village hut with no running water is something that nothing in their medical or nursing training prepared them for. It comes as a shock to find that, after a medical training structured round different specialisations, they are expected to be general practitioners, or rather experts in everything. Under these conditions, you learn a great deal in a very short time.

A typical letter from a young doctor working in the Hills of Wynad, in Kerala. "Let me first tell you the situation here. In one word, bleak. To elaborate - well, there is absolutely no work here. The last two days we had no materials at all. I am the only doctor, and I have an elderly pharmacist and two nurses. But 'Uncle', the only experience I had with this sort of work was with CHAD. With that in mind I am looking forward to this work here. But I may - rather I will need expert guidance in this venture of ours. I am relying on you for that."

Another recent graduate, taking over a leprosy programme near Trichy: "The task of organization and planning overwhelms me, though the training given in CHAD has helped me chalk out a basic modus operandi. Sir, I would like your help in organizing and planning for this programme."

Another, this time from Tirunevelli: "I was shocked to realise that there were no drugs, no equipment (even scissors, blades, needles or enough syringes). There was a bank balance of Rs 300/-. I should say it was a venture in faith. Initially I used my own money and minor surgical equipment, and with the hospital slowly picking up, bought my basic requirements : bucket, stove (!), cotton, gauze etc. I stole 3 benches from a nearby school to use as my operating table and for the waiting patients to sit."

This same doctor went on to be medical superintendent of the hospital he had built up from nothing. Two years later he writes: "I owe my sincere thanks to the Community Health Department for its COP programme, which really taught me about the real medical needs of our society."

The demands on CHAD alumni are various, and the task of planning programmes often daunting. A former intern writes from a tribal area in

Minor surgery at a Palamathi Hills clinic

the Kodaikanal Hills. "Since acceptance of modern medicine seems to be a difficulty with the tribals, we plan to start with children as our target group and begin with something inoffensive like nutritional surveillance and rehabilitation. Alongside, we will start health education about dietary practices, breast - feeding and oral rehydration. Ideally, a survey of the social, child - bearing and dietary practices of the population should be conducted, but there are not enough personnel for that."

Mona Saxena, a former CHAD post - graduate, writes from Uttar Pradesh. "My job is as Project Manager (Health) for CHIRAG (Central Himalayan Rural Action Group). The main objective of the group is to save and replenish the forests of the area, especially the N-E part of the block. Later the work will extend to adjacent blocks and the other 7 districts of UP. Health is basically an entry point, but - as in any other rural area - an obvious need and demand. We have held village meetings in 7 of the 130 villages and two have formed health committees (Swasth Panchayats) and chosen women for the village work. We will initiate with the mobile clinics once a week (because they are so far - flung) and once we have ten candidates, we will start with official training."

Dr Mona was working in an area so remote that there was no proper medical care available. When she became ill, she refused to leave her post. Friends and ex-colleagues were shocked to hear of her death, aged 32, from an attack of asthma.

And so it goes on : letters, visits and cries for help from former students, interns, post - graduates and registrars who have caught the primary health 'bug' at CHAD and now want to give at least part of their careers to setting up something new. But not all enthusiasts have gone into 'the field'. One recent graduate, Ramesh Babu, decided that the best place to be if he wanted to further the cause of community health was the government service. He gave up medicine and took the examination for the Indian Administrative Service. He has now been posted by the Andhra Pradesh government as a project officer in a tribal area. Others who have gone into government primary health services enjoy the challenge of trying to implement something of the CHAD experience within the public sector.

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Primary health is one of the biggest challenges in the developing world today, particularly when it is grounded in socio-economic development. Most of the young doctors, nurses and para-medics who go into it do so because they welcome a challenge. They enjoy the sense of breaking

new ground and doing something on their own. And naturally they come back to CHAD for help, advice and general moral support : how to get particular drugs, or an unbreakable vaccine container; urgent requests for 'road to health' cards or copies of the pro-forma questionnaire used in the COP; how to apply for funding, where to look for information about any number of things, in short, what to do if you're all alone with no support in an alien place, trying to build something from nothing.

The volume of cries for help has been growing, and CHAD staff try hard to give the support so urgently needed. It is a responsibility, but also a privilege to send its alumni out into this important pioneering work. Setting up new ventures tends by its nature to be a lonely business. However, many of the problems faced are essentially the same, and it is becoming clear that the most effective support might well be that which alumni could offer to one another.

With this in mind, the Community Health Department would like to set up a network of CHAD - trained people working in community health and development. There would be a newsletter, and an annual get - together where thoughts, problems, experiences and aspirations could be shared. Many say they would welcome the opportunity for this sort of regular communication.

Community health and development is not just a job. It is a way of life. It invades your home, your sleep, your family life. Either you get out of it as fast as you can and go into something more peaceful, or else it exercises a magnetism that draws you back to it, again and again, even when it has nearly killed you.

Dr. S. Jesudasan spent three years working on a leprosy control programme in Bhutan. He is at present a post-graduate student at CHAD. This chapter opens with one of his lowest moments. It finishes with this account of the rewards of the life he can't wait to get back to

"To see the smile of welcome from a patient in whose house we are spending the night after a hard day's work. To feel the taste of hot Bhutanese tea when you are dead tired. To pitch a tent at high altitude and then sit by the fire before bed. To see the mother's and relatives' relief when the baby is delivered. To see a leprosy patient's hand or foot recover function after operation. To look at the origin of a river from two lakes high up on the snow mountains covered in mist on the way to Lunana. To listen to the occasional sighing of wind through the pine trees in the cold still mountain air. These are reward enough."

Into the nineties 5

The purpose of development is to bring about change. First you have to decide what you want to achieve, then you make up your mind how will get there.

The CHAD Model (Appendix 1 & 2) asserts that CHAD's objective is to enable the communities it serves to take into their own hands the responsibility for their own health and development. The village is at the centre of the model, and everything else focusses on it. Major decisions are made at village level. Socio-economic development and environmental improvement are paramount : the healthy community cannot be achieved without them.

That is the model, and few would argue with the developmental principles behind it. The biggest obstacle to good health is grinding poverty, but that is only one manifestation of the trap the poor are in. The CHAD Model recognises this in its multifacetted, integrated approach to the rural predicament.

But that is not the whole story, as anybody who has read the first four chapters of this book will probably realise. Because there is a second model operating here, and at the centre of that model is not a village community in Kaniyambadi but a trainee doctor, stationed at CHAD Hospital, primarily concerned with his or her own medical education, and making occasional forays into the field in order to further it. Structurally, CHAD is part of the Community Health Department of CMC, and that department's main objective is the training of medical students.

This paradox has a number of consequences. The first is that, although CHAD accepts the principle of community disease (i.e. that crushing combination of socio-economic factors beneath which it is impossible for a healthy community to flourish), in practice, the health input far ourweighs the development one in staffing, resources and influence. CHAD is famous not so much as an innovative development programme - although indeed it is one - but as a challenging context for medical education in community health.

The second consequence flows from the first. Decision making in CHAD must (and does) recognise both models. The difficulty lies in

being quite clear about who is to benefit from any given decision, the village or the medical student. The two CHAD - models are focussed on two different sets of interests, and those interests will not often coincide. And at the end of the day, it must be remembered that CHAD is accountable to a large and famous teaching hospital, which provides most of its funding and pays a substantial and influential section of its staff. Directions and priorities can only be set in the context of the corporate directions and priorities of CMC.

It is instructive to compare the CHAD model with that of RUHSA (the Rural Unit for Health and Social Affairs), which is responsible for developing CMC's third block, K.V. Kuppam. RUHSA is also attached to CMC, but it is not part of the Community Health Department. As a result, RUHSA has a less elaborate health and medical input, and a correspondingly greater emphasis on socio-economic development. Of course the existence of the parent body has its consequences, but it is an obvious implication that RUHSA has been freer to develop in its own way because it has not been subject to the demands of medical education.

Its relationship with CMC has additional implications for CHAD's medical practice. One aim of CHAD is to train medical staff to manage patients without all the elaborate paraphernalia of a tertiary hospital. Many of them will go into mission hospitals and development programmes where there is only the sketchiest of equipment. They will need to make clinical judgements without the help of X - rays and laboratory facilities. There will be no handy tertiary hospital just down the road to admit patients when you don't know what to do.

Young doctors do not learn to value this experience until they find themselves alone in a mission hospital or upland clinic. In CHAD, they often find themselves in difficult moral dilemmas : knowing that the patient probably doesn't want to and can't afford to go to CMCH; knowing that the point of CHAD is to provide frontline care in just this sort of situation, but also feeling desperately afraid that this particular patient will die when it would take a ten minute ride in an ambulance to admit them to CMCH.

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Poor people cannot improve their health if they don't get enough to eat. Medicine is little more than a luxury if you don't know where the next meal is coming from. This idea is central to CHAD's philosophy and lies behind many of its income generating schimes. Another is that the most effective way to help families is to enable women to earn a

regular income which is not dependent on the vagaries of seasonal agriculture or of husbands and fathers who may or may not provide.

At present, the CODES co-operatives-that is, the non-agricultural income generating schemes - are mainly engaged in producing 'craft' articles which do not have a regular local market. Much of the output goes to craft fairs and craft shops or is sold through international charitable marketing organisations such as OXFAM or Traidcraft.

The are two major drawbacks to this. First, a centralised and highly sophisticated marketing organisation is required, supplying a market which members do not readily identify with, and difficult - maybe impossible - to maintain without outside help. Secondly, the programmes are inevitably marginal to the economic life of the region. This means that, although the money they bring in is often the family's chief source of income, the co-ops themselves are often perceived, by women as well as men, as a form of lightweight employment which brings in a bit of cash but whose product is not much use to anyone.

CODES members and CHAD staff are acutely aware of these problems. They are actively exploring new programmes which meet local demands. They would like to encourage people to develop other forms of economic activity : storage for grains and other crops, for instance. So often, the small producer, with no storage facilities, has to sell produce cheaply at the height of the season, then buy expensively later on when there is no food really available. Such co-operative ventures would cut out middle - men and enable poor people to make the most of what they produce.

CODES is also exploring the possibilities of simple, labour-intensive technologies which could feed fast growing sections of the Indian urban industrial economy. They intend to extend the agricultural and animal husbandry work, using new crops, intercropping techniques, and new methods of water management. Along with Madras Fertilisers and FATC, they are working on ways to make existing agricultural programmes more productive and maximise poor people's ability to produce their own food.

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By concentrating so many of its developmental efforts on women, CHAD has made an indisputable contribution to the welfare of families living in Kaniyambadi. It has given many women hope, self-respect, a sense of identity, and of course, a measure of economic independence. In conjuction with the balwadi movement, it has offered pre - school children the opportunity for development while their mothers are

freed for paid work. Through non-formal education it has introduced women to basic literacy skills, and through the mathar sangams has encouraged them to understand the problems their communities have and where possible to cure them.

What it has barely touched on is the development of the communities as a whole. Very few of the village leaders are actively involved in CHAD programmes, although all were involved in initial discussions and many are supportive. Men may benefit as individuals from agriculture or animal husbandry schemes, but apart from the occasional youth club, most of the community development activities focus on women.

As a result, although very many women are stronger and happier, the groups are perceived by men and women as useful ways of increasing the family income. They may bring the women together, but they do not produce greater cohesiveness within the community as a whole. Fundamental progress in community develpment cannot be made until this issue has been addressed and mixed or male oriented community development programmes implemented.

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CHAD has always sought to work closely with government services, and in most areas the relationship is fruitful and co-operative. CHAD implements a number of government schemes, and most grassroots personnel work harmoniously together.

Recently, CMC has agreed to take responsibility for developing health care services in neighbouring Anaicut block, using existing government facilities. This challenging job has fallen to Dr. Sara Bhattacharji. It will be interesting to see how effectively the CHAD model transplants into an existing government structure, or whether its success is dependent on the very different dynamics of the voluntary sector. The future of primary health services in India depends on a flexible and imaginative approach by government services. CHAD's long experience, and its greater continuity in terms of philosophy, commitment and staffing, mean that it has, potentially, much to offer here.

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Ninety years ago, Ida Scudder reacted with horror to the problems of Vellore town. The insanitary, rat-infested slums; streets used as community latrines; the professional beggars and the alcoholics and the prostitutes - some of them only children. In her early days in Vellore, she used to go out before breakfast to make calls in the alleyways and

zenanas of her adopted town. Poverty in the villages, she maintained, was rarely without a certain dignity and sense of community. In town, the battle for survival seemed to be conducted in conditions of such squalour and degradation that people became dehumanised.

The main change in ninety years is that the population of Vellore has increased about ten-fold, and the shift of the rural population to the cities and towns gains momentum all the time. The result is a shifting, rootless population, much of it living in dreadful housing conditions, and with no means of subsistence except what can be gained by preying on others.

CMC has always had a limited urban programme for community health nurses in training. Medical students in their final year block placement have been encouraged to investigate an urban problem and plan a programme to deal with it. Nevertheless, the Department is aware that it has never really come to grips with the problem of working out a model for community health and development that will work in the town.

This is an area that needs developing, not only because of the desperate need, but because of the importance of introducing medical students to the realities of a fast growing environment that is no more familiar and far more threatening than the village. The majority will end up practising in urban areas : they should not be ignorant of how a large section of the population lives.

For this reason, CHAD has asked Dr. J.P. Muliyil to develop a programme and work towards a model for community health and development that will work in Vellore town. The venture is in its infancy. At the moment he is able only to tackle the most obvious morbidity problems - leprosy, tuberculosis and immunisation - and to run a weekly clinic in conjunction with the municipal health staff. But it is an exciting development, and one that may well provide an important and original model for urban health and development.

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The very success of the CHAD programme brings its own problems. In the last fifteen years, socio-economic schemes have reduced considerably the amount of acute poverty in Kaniyambadi block. The health of communities has greatly improved. Education and accessibility have resulted in a positive attitude to and an extremely high take-up of health services, to a degree not typical of India as a whole. The concern is that students and interns introduced to the village situation here may go away with the notion that it's like this everywhere.

CHAD has therefore embarked on a limited outreach programme in the Jawadhi Hills, an isolated and inaccessible tribal area to the south of Kaniyambadi. Subsidised by a government grant, a full health and socio-economic survey is being done in an area with a total population of 10-15,000. A mobile health team, headed by Dr. K.R. John, visits fortnightly, sometimes more, and is steadily building up trust among communities that are unaccustomed to and often deeply suspicious of modern medicine.

Roadside clinic, Jawadhi Hills

In this region, anaemia and malnutrition abound. In some villages, half of all households contains at least one leprosy sufferer. Advanced tumours and tuberculosis are common, and venereal disease is rife. Traditional beliefs and practices are the norm, and patients, particularly young women with obstructed deliveries, often have to be carried up to twenty km over mountain paths to reach the van.

These tribes have traditionally existed by cutting wood in the forests, and hunting. Now these forests have been declared a reserve and many villagers have lost their livelihood.

This is a desperately needy area, requiring basic socio-economic and agricultural development even more than traditional health care. It is

Intern attending to a stretcher case, Jawadhi hills

in such areas that students and interns, social workers and development officers, can experience and respond to the most exciting challenges of community health and development.

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Every year, CHAD receives hundreds of visitors from all over the world. Many of them come to visit CODES, to see how the agricultural or socio-economic programmes are run. But the majority come because of CHAD's international reputation as a primary health programme and a context for medical education.

CHAD provides practical experience for young doctors, elective students and volunteers of all nationalities. It gives valuable moral support to those of its graduates who are working in the field. All the time ways of 'spreading the word' and ensuring that valuable experience is shared as widely as possible.

The logical next step is the establishment of training programmes in health and development. Young doctors taking up posts in primary health centres and district health offices, in both the public and the voluntary sector, often have no clinical or managerial experience at all in community health, nor any real understanding of the concept of

community disease. Courses for them would meet a real need, and would introduce the CHAD model to a far wider public than the present ad hoc arrangements. Courses in health management, epidemiology, maternal and child health, and rehabilitation would also be held, along with education in the theory and practice of development.

CHAD's role as a multiplying organism has a far greater potential than is realised simply through the CHAD-like models set up by CMC graduates. With this in mind, it is currently applying for funding to build and staff a training centre and hostel.

Going out to Mission Hospitals and Primary Health Centres, a young doctor may find herself being obstetrician, Paediatrician, Ophthalmologist, Surgeon, Counsellor, Physiotherapist, Lab. Technician and Pharmacist, one after the other at one and the same clinic. For these young doctors, narrow specialization is not appropriate what they require is specialization in Family Practice. With this in mind the Community Health Department would like to use the existing secondary care centre or CHAD Hospital in Bagayam, which is under the above leadership of Dr. Sulochana Abraham to provide specialised training in Family Practice.

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CMC is a Christian institution. CHAD is a part of it, and the great majority of its senior staff are Christian. And yet 90% of the population CHAD serves are either Hindu or Muslim. And this creates a problem.

Not the obvious problem, though. Respect for the culture, traditions and religion of others is central to CHAD's philosophy of development. Indeed, a health and development programme that does not show such respect is doomed to fail. CHAD's commitment is to helping poor communities, not converting them.

And yet village communities are, traditionally, deeply religious. Religion often pervades every part of people's lives, and virtually every object, place or organization is potentially holy. Where the development process is rooted in this spirituality, it may derive great power from it. Of course most valid development activity can by justified on simple common-sense, humanitarian grounds, or on the grounds that it is in the interests of the community. But given a sense of cosmic, spiritual significance, it engages a whole, new, and fundamental area of people's motivation and consciousness.

We are far away, at present, from any notion of a spirituality that might unite Christian, Muslim and Hindu — and yet such possibilities are in the air, and should not be too easily dismissed.

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Dr. Benjamin Pulimood, Director of CMC, views the future of CHAD in the context of CMC's history and of its 'mission'. From the early roadsides, there has been a long build-up to the developed community health structure we have today. The growth of tertiary care and the admission of men as well as women students have taken place in the context of CMC's existing commitment to the community. Many major research programmes have been in the field of community disease : Paul Brand's famous work on leprosy, and CMC's diarrhoea and community virology work are internationally recognised as cornerstones within their own fields.

Dr. Pulimood's model for the Christian Medical College includes tertiary care, outreach, reasearch and the education of medical students, nurses and paramedics. To complaints from the community health lobby that tertiary care aspects are developed at the expense of others, he replies that CMC is now almost self-funding, as it has to be, and it is the tertiary element that provides the money to pay for the rest. Cut down on tertiary care, and other sectors would soon feel the draught.

He is insistent, however, that the approach must be a wholistic one. A corporate commitment involves the whole institution, and cannot just be hived off into one department. That, he says, is CMC's mission. It is this concept that he would like to share with other medical institutions in India and the developing world today. It is this concept that enables CMC to continue the pursuit of academic excellence while keeping its feet firmly on the ground among the people.

CMC is a Christian College. And yet it is easy for large, successful institutions to develop a power structure and a mission that bears little relationship the Man who went about the roadsides, 2000 years ago, healing the broken bodies, minds and spirits. Christ was a great debunker of institutions, which was one of the reasons why he was killed.

To provide an efficient, modern tertiary care service, and to meet the requirements of medical education, it is necessary to have a concentration of specialist resources and staff, and that will unavoidably produce a large and complex institution. And yet the CHAD philosophy - like Dr Ida Scudder's philosophy, all those years ago - is that the only permanent road to health is through the economic development and education of grassroots communities to a level where they are able to take advantage of the services available.

Fortunately, this is not a either/or situation : it's a both/and one. CMC's commitment to the community is a historical, a moral and practical one, just as its commitment to excellence in tertiary care and

medical education are. For CMC and CHAD, this sometimes produces conflicts of interest. This is part of the nature of the institution. Wholistic models, grounded in the notion that the good of one is the good of all, are particularly conducive to glossing over legitimate conflicts of interest when they occur. When there is conflict, it is important to be clear - headed and honest enough to recognise whose interests are given priority, and why. That is the only way a wholistic model can work.

However, this is meant to be a book about a community health and development programme, and a partial book at that. One Eastern philosopher knew where his priorities lay. He was not talking about CHAD when he wrote this, but he might have been.

> **And if you would know God**
> **Be not therefore a solve of riddles.**
> **Rather look around you and shall see him**
> **Playing with the children.**
>
> Kahlil Gibran

"You shall see him
Playing with the children

APPENDIX I

THE CHAD MODEL

CHAD's communications centre is at the CHAD Hospital in Bagayam. This community health centre has been in operation since 1956, under the auspices of CMC's Community Health Department. Today its network of health teams operates within all 68 of the villages in the Kaniyambadi block.

The focus of CHAD's activities, however, is the village itself. Its first aim is to enable each community to become reponsible for its own health within a stable and adaptable structure of professional support. With 70% of the population composed of women and children, improved health within the community is achieved most effectively by the treatment and education of these groups. This is where CAHD concentrates most of its efforts.

The frontline of CHAD's health structure is therefore the Part-time Community Health Worker (PTCHW), a woman selected by the community who lives within it and covers a population of 1000 to 1500 people. Her job is to treat minor ailments, conduct deliveries and report births and deaths. She also keeps a check on morbidity cases, ante-natals, post-natals and under-fives. With her intimate knowledge of the community, its problems and its traditional beliefs and practices, her presence gives credibility and vital feedback to the whole programme.

Support for the PTCHW comes first from the Health Aide, a full-time, trained woman, also community-based, who normally covers a number of villages. Every week there is a visit from a Community Health Nurse (CHN), based at CHAD Hospital. Every two weeks, the whole community health team visits, usually in one of CHAD's big white mobile clinics. This team includes a doctor, CHN, community extension worker, the community-based Health Aide and PTCHW. The team usually includes an occupational therapist and/or physiotherapist experienced in community-based therapy for the handicapped.

Regular visits are also made by the Mobile Leprosy Team, with its doctor, nurses and its supporting team of occupational therapist, physiotherapist and cobbler. Any problem that cannot be dealt with by one of these teams is referred back to CHAD Hospital for investigation, treatment and possible admission.

Working closely with government services, and backed by CHAD Hospital's facilities, these teams are responsible for implementing the following programmes.

1. Maternal and Child Health

Dr. Sulo Abraham runs this service.Emphasis is placed on the early registration of pregnant women, and ante-natal and post-natal patients are examined fortnightly at the mobile clinic. Between 60% and 70% have registered by 16 weeks. Immunisation is given, and eligible couples are encouraged to adopt family planning methods. Over 90% of all pregnant women receive ante-natal care and 85% of the children are protected with DPT and polio vaccine.

2. Nutrition

If possible, severely malnourished children are admitted to base hospital. However, domestic problems sometimes make this difficult, and in such cases health education is given to the mothers and supplementary feeding packets provided. Weight gain is checked regularly by the team.

3. Tuberculosis Control

CHAD operates within the District Tuberculosis Programme, identifying and treating TB cases. Sputum is tested at CHAD Hospital and X-rays arranged if necessary. In recent years, some 260 cases per annum from Kāniyambadi and neighbouring communities, have been diagnosed and treated, either by the mobile teams or by the special TB clinic at CHAD Hospital.

4. Leprosy Control

This programme works with the National Leprosy Eradication Programme. Integrated clinics enable interns, medical, para-medical and nursing students to experience the NLEP, and refresher courses have been provided for leprosy staff working in the Government Control Units.

5. Rheumatic Fever and Rheumatic Heart Disease

In 1982/3, the prevalence of rheumatic heart disease was as high as 5/1000. Today, however, a nurse visits the schools, and all children with persistent sore throats are treated with long acting penicillin. An energetic poster and health education campaign warns of the dangers of ignoring early symptoms. As a result, the incidence sample schools in Kaniyambadi has dropped to 1/1000. Patients come to the mobile health clinics for regular treatment.

6. Psychiatry

Health aides are given training in the early detection and treatment of psychiatric disorders, and staff who visit people in their homes are made aware of basic counselling techniques.

7. Family Planning

Out of about 12,000 eligible couples in Kaniyambadi block, some 39% accept family planning. It is the job of the PTCHWs and the MCH Clinics to follow up eligible couples, both through home visits and clinic-based education programmes. The success of the programme can be judged by the fact that less than 30% of couples who delivered recently have more than two living children.

8. Community Based Rehabilitation

Rehabilitation of the handicapped is led by a team of occupational therapists, who visit between 300 and 400 cases a year. Vocational training is provided, wherever possible within the community. There is a successful sheep-rearing programme for leprosy sufferers. Tricycles, trolleys etc are provided where necessary, and the programme runs a successful candle-making business. In this way, people who formerly had no income, no skills, no hope and no self-respect are enabled to take their place as full participating members of their communities.

9. Sanitation

Improved environmental sanitation is a vital component in any preventive health programme. A low-cost latrine programme is now available, and health and development committees have been set up to encourage families to accept and use these. However, old habits die hard, and this programme still has a very long way to go.

10. Health Education

Health Education is central to all CHAD's programmes, not just the medical ones. The promotion of health practices depends on raising the awareness of communities, individuals and groups on such matters as sanitation, nutrition, immunisation and family planning. It is essential for health educators to work with, and not against traditional beliefs and practices. Education therefore permeates CHAD's health work. It is also conducted through mathar sangams (women's groups), craft, social and youth groups, and with the balwadi, or creche children. The emphasis is on traditional forms of folk drama and ballads, which are already a popular part of village life (see Ch 2 - Kathekallatchempam etc). Methods include role plays and dramas, film show, videos, slides, flash card demonstrations and poster campaigns. CHAD also publishes a health education magazine, THENI, which is distributed free in the villages.

CHAD HOSPITAL

The focus of CHAD's activities is the village community. However, the visitor to CHAD may be excused for having the impression that its most important feature is CHAD Hospital, the Community Health Centre at Bagayam. It is here that professional services are based, from here that the mobile teams radiated, and to here that referrals are made. For instance, if a child with acute malnutrition or diarrhoea is identified, or a woman with ante-natal problems, he or she will be referred and may well be admitted to the hospital. In any one year, approximately 47,000 patients may be seen in the Out-patients Department, 5,500 treated as in-patients, and 1,500 deliveries conducted. Some 150 Caesarian sections and 900 tubectomies are performed*.

The following services are based at CHAD Hospital:

1. High Risk Obsetetric Clinic

High-risk women presenting at the village clinics with obstetric problems are referred to this specialist weekly clinic. About 300 women a year are seen, and the perinatal mortality is much lower than for women who do not attend.

2. Nutrition Rehabilitation Centre

This vital centre admits children suffering from second or third degree malnutrition, along with their mothers. During their month or so in hospital, mothers receive education in nutrition, and come to understand the causes of malnutrition. Once the mother and child have returned home, a monthly follow-up visit is made by a nutritionist and the child's progress moitored.

3. Leprosy

A weekly leprosy clinic is held at the hospital, in co-operation with the mobile leprosy team. There is also a special ward designed for 26 leprosy in-patients. Today these tend to be older patients with a long history of leprosy and its complications, because newly identified sufferers come early for treatment and receive attention before they acquire deformities. Most new patients can be treated in the village with multi-drug therapy. A special cobbler is in attendance at all leprosy clinics.

4. Laboratory

The CHAD laboratory serves both hospital and community based programmes. All kinds of routine investigations are carried out. These now include Rh-typing and Coombs testing, which permits the emergency cross-matching of blood from related donors.

5. Pharmacy

The CHAD pharmacy dispenses drugs from hospital and community-based programmes. Covernment vaccines, leprosy and tuberculosis drugs are also stocked.

6. Theatre

CHAD Hospital has one moderately equipped theatre, where surgical procedures are performed. These include over 900 tubectomies a year, plus some 150 Caesarian sections.

7. Communication and Monitoring

These are essential elements in any effective primary health care programme. Information is collected though the structures of the health teams and collated, in the hospital, by computer. It is reviewed and discussed within various regular staff forums and then fed back to the communities. Validation is carried out annually, to correct any statistical errors that may occur as a result of under-reporting. In this was essential statistics such as births, deaths, peri-natal mortality and infant morbidity are calculated.

ANIMAL HUSBANDRY AND AGRICULTURE

Kaniyambadi is a rural area, and its people are traditionally entirely dependent on farming for their survival. This means that poor rains, inadequate food storage or inefficient husbandry can have catastrophic effects on the welfare of the community. No amount of health education, immunisation or nutrition supplements can compensate for low income or lack of food.

CHAD's agriculture and animal husbandry programmes provide education, technical support and financial and marketing advice. In response, many villages now have successful dairy co-operatives, poultry schemes and fishing or forestry departments, all bringing vital cash into the community.

Most villages now have their resident agricultural extension worker, chosen by the community and trained by CHAD. This worker is the front line of CHAD's agricultural teams and the many services they provide. He is a vital link in CHAD's mobile agriculture team, which visits every village regularly. Each team includes an agricultural adviser, a veterinary adviser and a co-ordinator, providing advice on the spot, essential liaison with banks, government schems and fertiliser companies. This team is also responsible for vaccination, deworming and artificial insemination.

Specific programmes are as follows :

1. Women's Dairy Co-operatives

This flourishing society of milk producers was probably the first women's dairy co-operative in the state. It doubled its output in its first year, and now goes from strength to strength. Although the society is managed by a board of directors, the CHAD teams respond to its day-to-day affairs and sustain the interest of members and the community.

2. Artificial Insemination

To improve the quality of local cattle and increase milk production CHAD has initiated a popular artificial insemination scheme. The two centres at Mottupalayam and Bagayam perform about 2000 inseminations a year.

3. Calf-rearing Scheme

Under this scheme high-bred calves are given to PTCHWs cured leprosy women and women's dairy society members. Concentrated calf-meal is distributed improving milk production and ensuring beneficiaries a return of Rs 150/- to Rs 200/- per month per cow. After the fully-grown cow has calved the new calf is returned, thus 'passing on the gift' to another needy person.

4. Sheep Rearing

This scheme operates in the same way as the calf rearing scheme. It too benefits cured leprosy patients for whom employment is such an intractable problem. 20 sheep and 1 ram are given and the recipient must return the same number of lambs in due course.

5. Back Yard Poultry

Members of the mathar sangams or mothers clubs benefit from this scheme. Each woman is given 10 hens and a cock. At the end of the year through the hatching of eggs she has to return the number of birds given to her in the first place so that they may be handed on to somebody else.

6. Social Forestry Scheme

Tree nurseries have been started on village wastelands using grants from the Tamil Nadu Social Forestry Department. In addition to the environmental advantages the young trees will provide valuable income for the community.

7. Fodder Farming and Development

Villagers are encouraged to grow high-yield fodder both for their own use and for sale. Under this scheme CHAD hybrid grass and subabul are grown, the root being supplied by CHAD.

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Together these schemes have had a powerful effect on the village communities in Kanivambad. Productivity has increased and many more people have been drawn into the process of agriculture and animal husbandry. Examples of successful and lucrative practice have set examples and raised awareness of the benefits of efficient farming. Planning ahead and general diversification have provided a hedge against adverse climatic and economic conditions and an atmosphere of increased prosperity in poverty-stricken villages which must augur well for the future.

ADULT AND NON-FORMAL EDUCATION

The welfare of a community cannot be seen simply in terms of food production or morbidity figures. Any individual who cannot read or who is incapable of making life tolerable for his or her family within their own environment any community that considers itself a helpless victim of circumstances neither understands nor controls any group in society that fatalistically accepts being the under-dog all of these must be viewed as disadvantaged in relation to the world around them.

It is now generally recognised that health does not just mean an absence of disease. No primary health service can succeed unless it takes into account the welfare of the whole individual the social and economic forces that affect that individual and his or her educational competence to cope with their environment.

CHAD's Non-Formal Education Team operates from the CHAD Hospital in Bagayam. It provides training and support for village-based educational extension workers animators and balwadi (creche) teachers. It provides educational materials and co-ordinates the education programmes particularly where they link in with Government programmes.

1. Adult Literacy

At 36%, the adult literacy rate in Kaniyambadi is very low. In the late 20th Century, lack of basic literacy skills places acute limitations on the individual's potential, both in personal development and in the range of employment available. CHAD now has over 40 non-formal education centres.

2. Continuing Education

CHAD also runs about 30 continuing education centres. Of all its programmes, this is arguably the most challenging and exciting. Conducted by village-based, CHAD-trained extension workers and 'animators', the groups operate in such a way that literacy work goes hand-in-hand with increased awareness. Groups may focus on any number of issues from family planning to schooling or local transport facilities. Local craft industries or other income generating activities can also become the focus for this type of educational programme.

3. The Mathar Sangam

The mathar sangam, or mahile mandal, as it is sometimes called, is an important part of the continuing education programme. It is basically a meeting club for women. Its aim is to help women become more aware of their surroundings, to understand their rights and to realise their ability to change their lives and those of their families for the better.

Each mathar sangam is invited to identify a problem within the community and attempt to solve it. Successes include a palmyra leaf training programme benefitting 20 women, a new bus route connecting isolated villages, and the raising of an overhead power cable by the government, enabling CHAD's mobile clinic to reach the village.

The development of women's agriculture and craft co-operatives is an important outcome of this programme. The element of economic development will be dealt with in the section on CODES. But the practice of co-operation and the results it can be shown to achieve can have an electric effect of women who have been born and raised to a fatalism that has convinced them there is no alternative to their lot, however hard that may be.

4. The Balwadi

CHAD runs some 26 Balwadies, or day-care centres, where children under five can be cared for while their mothers work, either in the fields or, more recently, in the new craft centres or co-operatives. Selected from the village, Balwadi teachers are trained by CHAD, with the emphasis laid on the physical, social and cultural development of the children. Records are kept of their height, weight, immunisation history and morbidity and centres are visited regularly by local health personnel. Children who have attended these balwadies have been shown to do better in their first years at school that the rest of their age group.

THE COMMUNITY DEVELOPMENT SOCIETY

THE CODES COMMITMENT

CODES is now an independent registered society. However, its aims and history are inseparable from CHAD's, their programmes interact and their personnel work together at all levels.

Basically, CODES has taken over the management of CHAD's income generating activities. It co-ordinates the operations, from the buying of raw materials to the marketing of the finished product. It provides or arranges training. It works alongside the Non-Formal Education teams to promote social awareness, self confidence and leadership qualities. To its great credit, it is regularly approached with requests to service Government-sponsored projects in Kaniyambadi block.

The CODES campus is in Bagayam, across the road from CHAD Hospital. The Society's headquarters, and also the HQ of the Women's Handicrafts Co-operative are here. It is not unusual to find energetic groups of women vigorously discussing new designs, a new marketing strategy, or plans for fulfilling a big order from an overseas marketing organisation such as Traidcraft or OXFAM, or for a craft fair in Madras. The not-for-profit, purpose-co-operative society, embraces three different types of craft centres.

1. Palm Leaf Centres

These were CODES' first venture into women's handicraft groups, chosen because of local availability of materials. There are now 9 of these centres, making baskets, mats and other decorative items.

2. Mat Weaving Centres

There is a ready market for these characteristically attractive floor mats and materials are easily available.

3. Sisal Fibre Centres

This craft is very popular with the women, who make table-mats, baskets, hats and a variety of other products.

These products may be bought on the CODES campus in Bagayam, from the CODES shop at the CMC Hospital in Vellore, in many other centres in India, and through non profit-making marketing organisations in the USA and UK. Annual turnover is more than Rs 400 000. But perhaps the best news is that back in the villages, women who started off penniless can now earn between Rs 200 - and Rs 300 - a month, and have gained independence and leadership powers they would never have envisaged. See Chapter 1.

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Other CODES programmes are as follows.

4. Women's Tailoring Units

CODES has trained some 60 women in 4 centres to do professional tailoring. It also has a production unit making embroidered garments and school uniforms.

5. Women's Steel Fabrication and Welding Unit

Under this original scheme, rural women from very poor families are trained in gas- and arc-welding and metal fabrication. The unit now receives candidates for training from the Government of Tamil Nadu TRYSEM scheme.

6. Women's Masonry Unit

Perhaps the most unusual of the CODES programmes, the women's masonry unit trains women as fully-fledged masons. This scheme has now been recognised by the Tamil Nadu Government and CODES has been entrusted with training fresh batches of women for masonry work. See Ch 2, section on Mailga

7. Automobile Repair Training

This is CODES' only progamme for men. Youths from very poor families are selected for two years intensive training in car repair work. This programme, too, now operates under the TRYSEM scheme.

The philosophy of CODES is discussed in the first section of this book. But nobody who has seen these groups at work can possibly doubt the programme's power to transform the lives of the women participants themselves, or of their families, or their communities.

APPENDIX III

RESEARCH AT CHAD

CHAD is one of the longest-standing primary health programmes in India. It has worked in Kaniyambadi for over 30 years. It has a stable, committed staff, backed by the resources of a well resourced academic institution. More recently, it has easy access to computers and to staff who are trained to use them. Together, these factors make CHAD an ideal base for research into community epidemiology and the relationship between disease and the environment. The ICMR has recognised this by funding a number of its special programmes.

But first, an essential part of any programme is the ongoing operational research. Without monitoring and regular assessment of work in progress, long-term strategies become impossible and objectives may be forgotten or ignored. In CHAD, information is collected through the structures of the integrated teams and collated by computer. It is reviewed and discussed within various staff forums and then fed back into the communities. Validation is carried out annually, to correct statistical errors that may occur as a result of under-reporting. In this way, essential statistics such as births, deaths, mother and child health and general morbidity are maintained. Using this data factors influencing perinatal infant deaths are being studied, and certain findings have led to changes in strategy.

In addition to this basic monitoring, CHAD staff may at any one time be engaged in a variety of special research programmes.

Rheumatic heart disease is the subject of one ICMR programme. Through schools and other networks, health aides identified children with persistent sore throats and gave them Benzathine penicillin injections. When the incidence of rheumatic heart disease in the project area was monitored, it was found to be considerably lower than in the control area.

A field study on **nutritional anaemia among pregnant women** looked at the relative effectiveness of 3 different strengths of iron supplement, and established an optimum dosage. This is another ICMR programme.

Leprosy research continues. One programme looked at the protective value of BCG against leprosy, and results so far seem to indicate that patients who have been innoculated with BCG will not contract the more acute forms of leprosy.

The value of **home-based mothers' records,** in mother and child care and in health education has been examined. In practice, it was found that it was only with great commitment by health aides and ANMs that the card could be effectively used. Where there was a good rapport between health aide and mother, it proved an effective medium for awareness raising, however. This is an ICMR programme.

The health of young women and girls is a matter of concern in many quarters. Girl children are twice as likely as boys to be malnourished, and half as likely to get a good education. ICMR is funding a study of young women's health in Anaicut block, conducted through the medium of focus group discussions, attitude surveys, etc.

Simple screening tests are essential to an effective primary health care programme. CHAD has been field testing a test for urinary infection in pregnant women. This study is being carried out by a post graduate student.

For a relatively small institution, operating mainly in one development block, this is a large number of programmes. Further, it is important to remember CMC Hospital's long and honorable record of research into community diseases. Its work on **leprosy, diarrhoea** and **community virology** are internationally recognised.

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APPENDIX IV

CHAD AT A GLANCE

A) Some Important Health Statistics of Kaniyambadi Block for 1988

Area of Kaniyambadi Block	127.4 Sq Km
Mis - Year Population (Estimated)	87,825
Average Family Size	4.9
Total Births in the Community (Permanent Residents)	2057
Total Deaths in Community (Permanent Residents)	774
Birth Rate per 1000	23.4
Death Rate per 1000	8.8
Infant Mortality Rate per 1000 Linve Births	57.4
Perinatal Mortality Rate per 1000	43.9
Maternal Mortality Rate per 1000 (6 Including 4 Septic Abortions)	2.9
Eligible couples who have had sterilization	39.7%
Total Deliveries (Perm & Temp)	2622
Hospital Deliveries	(43%)
Home Deliveries	(57%)
Deliveries by trained personnel	(91.5%)
No. with Antenatal Care	2489 (95%)
No. of women with complete T.Toxoid	2211 (84%)
No. of high - risk deliveries - total	446 (18%)
No. of high - risk delivered - in hospital	206 (46%)

Distribution of Birth Weiths	No.	%
Lesthan 2.00 KG	73	3.3
2 - 2.4 KG	361	16.5
2.5 - 2.9 KG	1059	48.5
More than 3.00 KG	694	31.7
Total	2187	100.0
Not Recorded	435	

Immunization Status (12 - 23 Months)	
DPT/OPV 3 Does	86%
Measles	81%
BCG	82%

No of Living Children at time to last delivery (permanent residents only)

No. of children	No.	%
1	803	39.0
2	669	32.5
3	359	17.5
4	158	7.7
5+	68	3.3
Total	2057	100.0

No. of patients registered in village clinics	45 634
No. of patients registered in out patient clinics	46 955
No. of patients admitted in Chad hospital	6.208
Total deliveries in Chad hospital	1.776

B. Social Development :

	Beneficiaries
No. of Balwadi/creches	27
No. of children enrolled	871
No. of Adult Education/Nonformal Centres	30
No. of learners	543
No. of Mahila Mandal (Women's club)	23
No. of active members	345

Income Generating Schemes :

EXCLUSIVELY FOR WOMEN :

Number of Handicraft Centres	16
No. of women employed	450
Masonary	14
Silk reeling	15
Welding	12
Milk Societies (two)	125 families.

GENERAL

Automobile repair & Maintenance	20
Canteen	8
Sheep rearing	29 families
Heifer	87 families
Backyard poultry	57 families
Rabbit rearing	2 families
Fish farming	1 family
Social Forestry	92 families
Agriculture	200 families

APPENDIX V

THE CHRISTIAN MEDICAL COLLEGE IS GRATEFUL TO THE FOLLOWING ORGANISATIONS WHICH HAVE FINANCIALLY SUPPORTED CHAD AND CODES.

Baring Foundation
Canadian Cooperative
CAPART
Christian Aid
Church World Service
Damien Foundation
Department of Family Welfare
Ford Foundation
Friends of Vellore, Australia
Friends of Vellore, Sweden
Friends of Vellore, UK
Indian Council of Medical Research
Ministry of Health & Family Welfare
OXFAM America
Presbyterian Church, USA
Social Welfare Board
State Resource Centre
Swedish International Development Agency
Traid Craft
TRYSEM
Vellore Board, US
World Vision

APPENDIX VI

STAFF OF COMMUNITY HEALTH DEPARTMENT AND CHAD PROGRAMME

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Punguzhali
Purushothaman
Rajamani
Rajan T.A.
Rajeshwari Rao
Ramanamma
Rani
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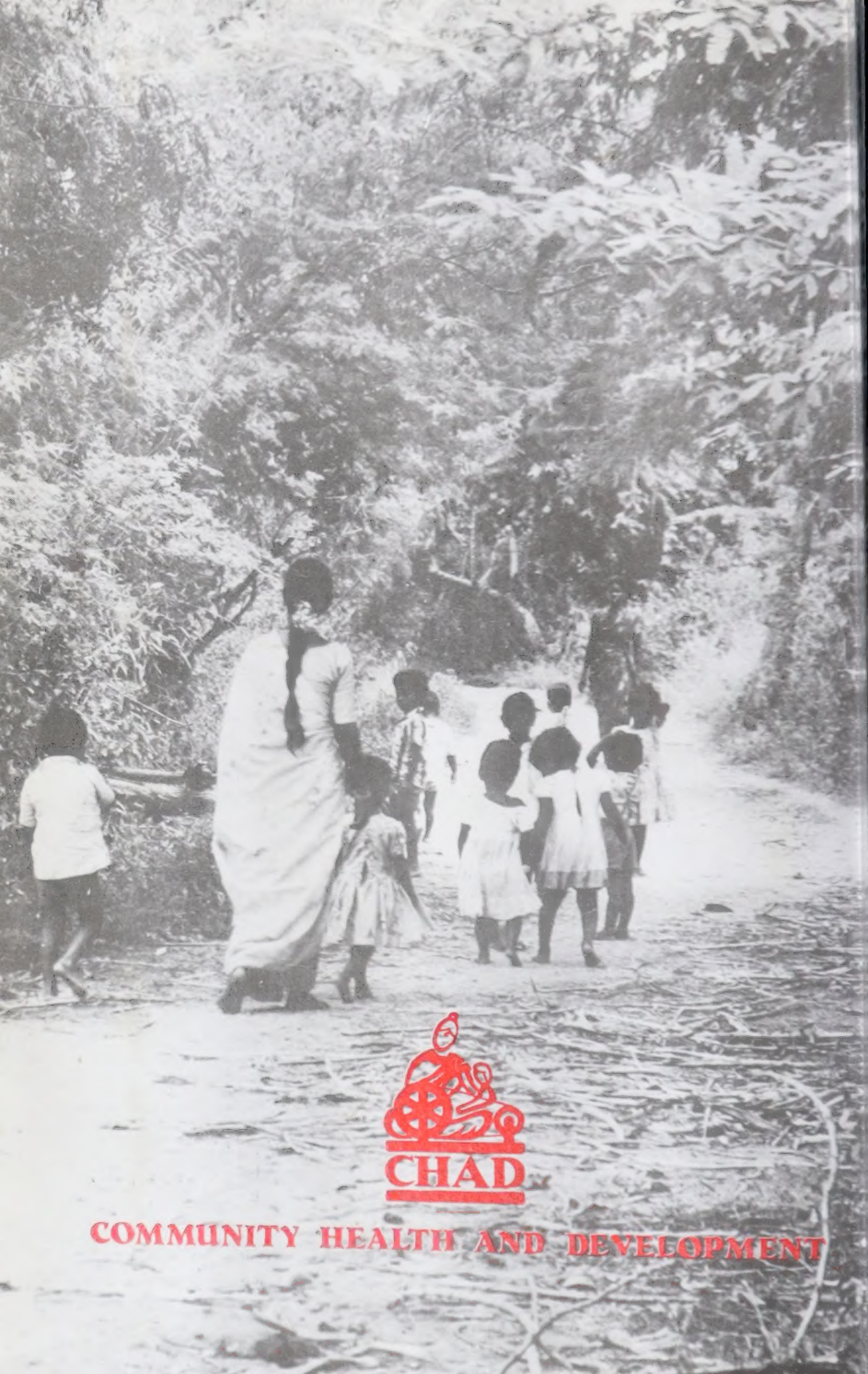
CHAD
COMMUNITY HEALTH AND DEVELOPMENT